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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Secretary Of Agriculture

More Attention Needed In Key Areas Of The Expanded Crop Insurance Program

In accordance with the Federal Crop Insurance Act of 1980, the Federal Crop Insurance Corporation (FCIC) has made substantial progress in expanding its insurance program nationwide and in involving the private sector in selling and servicing insurance. However, in its efforts to rapidly change the program, FCIC did not give appropriate attention to the actuarial soundness of its insurance and therefore has little assurance that the premiums set are adequate to cover potential loss claims.

This report evaluates how FCIC is carrying out the 1980 act. GAO found that FCIC needs to update its insurance offers and see that all necessary actuarial reports and analyses are prepared in a timely manner. It should also

--assess the potential benefits of using actual crop yield data to set insurance rates and coverages to better reflect differences among farmers' productivity and risk of loss,

--evaluate the rates at which it compensates the private sector for selling and servicing crop insurance and adjusting claims for losses to make sure the rates are both fair to the companies and cost-effective to the government, and

--evaluate the reinsurance program (reinsuring private insurance companies against part of the risk on the federal crop insurance policies issued in their names) to see if it is achieving its intended purpose.

UNITED STATES GENERAL ACCOUNTING OFFICE

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MARCH 14, 1984

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-214525

The Honorable John R. Block
The Secretary of Agriculture

Dear Mr. Secretary:

This report describes improvements needed in the actuarial practices of the Federal Crop Insurance Corporation, the rates at which private sector companies are compensated for selling and servicing crop insurance, and the distribution of gains and losses on crop insurance sold by private companies and reinsured by the Corporation. We made the review in response to concerns expressed by committees and Members of Congress about the Corporation's progress in implementing the Federal Crop Insurance Act of 1980, the effectiveness of program changes in light of insurance losses in crop years 1981 and 1982, and the annual increases in the Corporation's appropriation requests.

The report contains recommendations to you on pages 24, 35, and 46. As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to interested congressional committees and Members and to the Director, Office of Management and Budget. We are also sending copies to your Inspector General and the Federal Crop Insurance Corporation.

Sincerely yours,

J. Dexter Peach
Director

GENERAL ACCOUNTING OFFICE
REPORT TO THE SECRETARY
OF AGRICULTURE

MORE ATTENTION NEEDED IN
KEY AREAS OF THE EXPANDED
CROP INSURANCE PROGRAM

DIGEST

Before 1980, two federal programs--a crop insurance program and a disaster payment program--offered farmers some protection against loss of income when their crops were damaged or destroyed by natural causes. The insurance program provided insurance coverage in a little over half the nation's 3,000 counties for 1 or more of 27 different commodities. The farmers paid a premium for this coverage.

The disaster payment program provided protection free to farmers of six major commodities (wheat, corn, cotton, rice, barley, and grain sorghum) that were also eligible for insurance coverage. Under this program, farmers received federal disaster payments if adverse weather or other natural disaster prevented the planting or harvesting of the six commodities.

The Federal Crop Insurance Act of 1980 called for (1) improving the crop insurance program and expanding it nationwide and (2) eventually phasing out the free disaster payment program. It also called for involving the private sector in selling and servicing the insurance and provided for the government to subsidize up to 30 percent of each farmer's premium. The Department of Agriculture's Federal Crop Insurance Corporation had the demanding task of carrying out the act.

Committees and Members of Congress have raised concerns since the act was passed about the Corporation's progress in implementing the act, the effectiveness of program changes in light of $190.9 million in insurance losses (premiums not covering claims) for crop years 1981 and 1982,[1] and the annual increases in the Corporation's appropriation requests. Consequently, GAO made this review to determine the effectiveness and efficiency of the Corporation's operations. (See pp. 1 and 5.)

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[1]Crop year refers to the calendar year in which an insured crop normally is harvested.

EFFECTS OF THE EXPANDED PROGRAM

Following the 1980 act, the Corporation made substantial progress in expanding the program and in involving the private sector in selling and servicing crop insurance. For crop year 1982, federal crop insurance was available in 2,999 counties, nearly twice as many as in crop year 1980; insurance in force totaled over $6 billion on about 44.2 million acres compared with about $3 billion on about 26.5 million acres for crop year 1980; and premiums on insurance sales totaled about $399 million compared with $158 million for crop year 1980. The private sector handled nearly 100 percent of the insurance sales for crop year 1982 compared with about 17 percent for crop year 1980.

However, the Corporation did not give appropriate attention during program expansion to making sure that its insurance was actuarially sound (i.e., that premium rates and insurance coverages are set at levels commensurate with the likelihood of insured losses), and it did not make all the evaluations and cost studies needed to assure that the actions it took to involve the private sector were appropriate. (See pp. 11 and 12.)

ACTUARIAL PRACTICES

To ensure that premium rates and insurance coverages are set at levels commensurate with the likelihood of insured losses, rates and coverages need to be set on the basis of the most current data on crop yields and losses. Also, to be attractive and fair to producers, the rates and coverages offered to them need to be commensurate with the potential risks involved. Low-risk producers will not be attracted by insurance rates that are too high; high-risk producers will be attracted by rates that do not fully reflect their risks. Following the 1980 act, the Corporation concentrated its staff resources on the program's expansion while it:

--Deferred normal actuarial review and evaluation activities needed to update and correct insurance offers and establish premium rates and coverages for new insurance offers. For example, crop year 1982 insurance offers for the grain, peanut, and tobacco crops were based on losses and yields experienced through crop year 1978 or earlier, and for cotton on experience through 1975.

--Delayed development of various actuarial reports needed to analyze the most current experience on crop yields and losses. Some reports required as a result of the 1980 act were not expected to be developed until late 1983 or early 1984.

--Did not do the research necessary to resolve longstanding concerns about its actuarial procedures. For example, previous government and industry studies had concluded that the Corporation procedures may result in excessive accumulation of reserves against catastrophic losses for some crops and not enough for others while accumulating insufficient reserves on an overall basis.

As a result, the insurance program may not be actuarially sound and the Corporation has little assurance that the premiums set are adequate to cover potential loss claims. (See pp. 13 to 22.)

Additionally, the Corporation groups farmers into a few large risk groups in each county based on estimated crop yields for purposes of setting premium rates and insurance coverages. Rates and coverages set on this basis tend to be economically attractive to higher risk producers and less attractive to lower risk producers. Establishing smaller risk groups based on actual crop yield data would result in rates and coverages that more equitably reflect differences among farmers' productivity and risk of loss. (See pp. 21 and 22.)

The Corporation has obtained outside assistance to review the adequacy of actuarial methodologies and operations.

Recommendations

GAO recommends that the Secretary of Agriculture direct the Corporation to

--moderate further expansion activity to allow the Corporation's Actuarial Division to update insurance offers (including premium rates),

--give increased attention to completing actuarial reports on past insurance experience, and

--consider the potential for establishing smaller risk groups based on actual crop yield data. (See p. 24.)

COMPENSATION RATES FOR PRIVATE SECTOR PARTICIPANTS

The Corporation did not make a detailed cost study when it established the compensation rates for the private sector companies' sales and service activities. Instead, it set the rates on a straight percent-of-premium basis, using as a guide the relationship between its own past costs to sell insurance and its past premium income. As pointed out above, the new expanded insurance program is very much different from the pre-1980 program. Also, in computing sales costs, the Corporation included some claims adjustment and other costs not related to private sector sales and some costs for actuarial functions that the Corporation, rather than the private sector, carries out. Consequently, the compensation rates being paid by the Corporation are not based on the private companies' costs of providing services. (See pp. 30 to 32.)

In addition, the Corporation based the compensation rates for adjusting claims for insurance losses on a percentage of premiums plus a percentage of the losses actually paid. However, neither the premiums nor the amounts of the losses are directly related to the actual expenses private companies are incurring for adjusting claims. (See pp. 32 to 34.)

Lastly, when establishing compensation rates, the Corporation did not consider the potential for increased premiums under the expanded program. Because the 1980 act requires higher levels of protection, the average premium rate has nearly doubled since 1979. Although the costs to sell a policy undoubtedly have increased due to inflation and to the increased number of options available to farmers under the expanded program, such costs may not have increased at the same rate as the premium rate. Compensation rates set on a straight percent-of-premium basis therefore may be too high. (See pp. 27 to 30.)

A difference of only one or two percentage points in the compensation rates could translate to a several million dollar difference in payments to the private sector. GAO believes that to be fair to both the government and the private sector, rates need to be reevaluated and set on the basis of the private sector's actual costs to provide the services.

Recommendation

GAO recommends that the Secretary of Agriculture direct the Corporation to evaluate the established compensation rates in relation to the current, and/or expected, premium base and the private sector's costs to provide services. The rate structure should, if warranted, be adjusted to provide reasonable compensation to the private sector and be cost-effective to the federal government. (See p. 35.)

REINSURANCE PROGRAM

The Corporation established a reinsurance program for 1981, expanded it for 1982 and 1983, and plans to further expand it. Under the program, private insurance companies, acting as insurers for policies issued in their names, obtain reinsurance coverage from the Corporation as protection against part of the risk of insuring crops. A standard reinsurance agreement specifies how gains and losses on such policies are to be allocated between the companies and the Corporation for their respective portions of risk sharing.

Since 1981, annual revisions to the standard reinsurance agreement have allowed the reinsured companies a greater potential for gain while limiting the amount of loss they could incur. Although these annual revisions have been made to encourage more companies to participate as part of the effort to have companies sell insurance on all crops nationwide, the Corporation made the revisions without an evaluation of each previous agreement to determine whether such revisions were actually needed to encourage such participation and were cost-effective.

The revisions have resulted in increased costs and risks to the Corporation. For example, the 1983 formula for sharing gains and losses provided that losses would have to exceed

128 percent of premiums before the participating companies would begin to share in any loss. For 1981 and 1982, loss sharing started when losses exceeded 100 percent of premiums. (See pp. 36 to 44.)

Further, the formula for sharing gains and losses, which is applicable to all reinsured companies nationwide, does not consider each company's geographical area of operation and the past loss experience in that area. This results in providing companies selling insurance in low-risk areas even greater potential for gain. For example, GAO's review showed a weighted loss ratio of 0.88 (ratio of claims paid to premiums received) for the seven states in which one of the reinsured companies planned to sell insurance compared with the nationwide loss ratio of 1.10 that the Corporation used in developing the 1983 gain and loss formula. (See pp. 44 and 45.)

Recommendations

GAO recommends that the Secretary of Agriculture direct the Corporation to moderate further expansion of the reinsurance program until the current program's operation can be evaluated to assure that it is cost-effective for both the government and the insurance companies. GAO also recommends that the Secretary direct the Corporation to tailor its agreements to each reinsured company's area of operation with a formula based on the loss experience for that area. (See p. 46.)

ACTIONS TAKEN TO IMPROVE QUALITY CONTROL PROGRAMS AND AUDITS OF REINSURED COMPANIES

The Corporation has initiated a number of actions, such as additional training, that should improve the insurance paperwork submitted by independent agents and master marketers. Furthermore, it has taken several steps to develop a comprehensive quality control program and a plan for an independent audit of the reinsured companies. These efforts are needed to make sure that insurance written and claims paid meet the crop insurance program's requirements and that the experience is correctly reported for actuarial purposes. Because of the actions taken or planned by the Corporation to improve quality controls and audits, GAO has no recommendations on these matters at this time. (See pp. 48 to 51.)

AGENCY COMMENTS AND GAO's EVALUATION

The Department of Agriculture said that GAO's review was comprehensive and recognized the key issues that the Department and Corporation faced in implementing the 1980 act. The Department agreed with GAO's conclusions that management attention is now needed in several key areas to achieve a sound and well-managed insurance program. (See p. 12.)

Regarding actuarial practices, the Department said that an actuarial consulting firm's completed review of the Corporation's rating system will provide a basis for instituting modern actuarial systems to make the premium structure review more current and reflective of actuarial experience. The Department added that actuarial modernization is the Corporation's number one priority and that the Corporation will implement an improved ratemaking system and develop an actuarial research function so that its ability to correctly establish insurance offers will be in tune with current and accepted actuarial practices and theories. GAO believes that these actions, when implemented, should improve the program's actuarial soundness. (See pp. 24 and 25.)

The Department agreed that the compensation rates for the private sector were based on limited data. However, whereas GAO concluded that the rates established were too high, the Department believes that it is inappropriate to form any conclusions pertaining to rate structures until a thorough review is made. The Department said that since the private sector's expanded involvement in the past 3 years establishes a body of data on which to base the compensation rates, experts from outside the government were being sought to evaluate the rates to be used in future agreements. GAO believes that its review demonstrated that the compensation rates were set too high. GAO also believes that the action the Department is taking to evaluate these rates is responsive to GAO's recommendation. (See p. 35.)

The Department said that the private companies reinsured by the Corporation are rapidly expanding their business and that as their business stabilizes, particularly the distribution across crops and geographical areas, agreement terms can be fine-tuned to equitably reinsure the risks involved. The Department also said that it was developing the specifications for an objective nongovernmental body to review the agreement and recommend improvements. (See pp. 46 and 47.)

C o n t e n t s

ABBREVIATIONS

ASCS	Agricultural Stabilization and Conservation Service
CHIAA	Crop Hail Insurance Actuarial Association
FCIC	Federal Crop Insurance Corporation
GAO	General Accounting Office
IYC	individual yield coverage
OIG	Office of Inspector General
USDA	U.S. Department of Agriculture

CHAPTER 1

INTRODUCTION

Farming is an exceptionally high-risk undertaking. Beyond the perils of economic uncertainties caused by fluctuating prices for farm products, a farmer also faces many uncontrollable (and unpredictable) natural hazards. These can prevent planting of crops or destroy planted crops, even in the best production years. Historically, 1 of every 12 acres planted is not harvested because of adverse weather or other natural disasters.

Before 1980, two federal programs--an insurance program and a disaster payment program--offered thousands of the nation's farmers some protection against loss of income when their crops were damaged or destroyed by natural causes. The federal crop insurance program, which in the late 1970's covered as many as 27 commodities and about 1,700 of the nation's 3,000 counties, gave farmers in those counties the opportunity to mitigate the risks they faced from weather, insects, and disease by spreading the risks among many persons and over many areas and growing seasons. On the other hand, the disaster payment program provided a form of free insurance covering six of the major commodities (wheat, grain sorghum, cotton, rice, barley, and corn), whereby farmers received federal disaster payments if adverse weather or other natural disaster prevented the planting or harvesting of these six commodities.

The Federal Crop Insurance Act of 1980 (Public Law 96-365) radically changed these two programs. Essentially, the act called for (1) improving the insurance program and expanding it nationwide and (2) eventually phasing out the free disaster payment program. This report discusses the progress and problems in improving and expanding the crop insurance program.

FEDERAL CROP INSURANCE CORPORATION

The Federal Crop Insurance Corporation (FCIC), a wholly government-owned corporation, was created in 1938 as an agency of the U.S. Department of Agriculture (USDA). Its purpose is to promote the national welfare by improving the economic stability of agriculture through a sound system of crop insurance and providing the means for research and experience helpful in devising and establishing such insurance.

Before 1980, the program operated on a limited basis, covering certain commodities and selected counties. It was characterized by some as an experimental program. The 1980 act provides for an actuarially sound, nationwide, cost-sharing insurance program for agricultural producers to protect their production investment against essentially all unavoidable risks.

The new legislation provides that FCIC's Board of Directors shall, among other things:

--Use the private sector, to the maximum extent possible, to sell and service crop insurance.

--Provide higher coverage levels.

--Encourage the broadest possible participation in the program by having FCIC subsidize a portion of the farmer's premium.

--Provide a test program of reinsurance (whereby part or all of the risk is transferred from the original insurer to another party), to the maximum extent practicable, to begin not later than with the 1982 crops.

--Beginning in the 1981 crop year[1] and ending after the 1985 crop year, conduct a pilot program of tailoring the crop insurance to the individual farmer's risks in not less than 25 counties. This program allows farmers to obtain an increase in the coverage offered based on actual yield history.

The act's underlying principles are to provide producers adequate protection at a reasonable price through an insurance program and to no longer support producers through the disaster payment program after crop year 1981. Priority attention in expanding crop insurance into new counties was to be focused on the six commodities covered by the disaster payment program. To carry out its expanded program, FCIC was authorized 200 additional permanent, full-time employees. This provided a personnel ceiling of 760 positions.

ADMINISTRATION OF THE CROP INSURANCE PROGRAM

FCIC's overall management is vested in a seven-member Board of Directors subject to the Secretary of Agriculture's general supervision. FCIC's Manager is the chief executive officer. FCIC has its main offices in Washington, D.C., and in Kansas City, Missouri. The Washington office provides general policy guidance and oversight while the Kansas City office handles program operations. FCIC also has 10 field actuarial offices, which establish county insurance offers, and 18 regional offices, which

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[1]Generally, crop year means the period within which a crop normally is planted and harvested. It is designated by reference to the calendar year of harvest.

provide field assistance for the marketing and contract servicing functions, except for those of the reinsured companies. As of October 1, 1983, FCIC had 1,961 paid employees with 687 being permanent, full-time and most others being "when actually employed" employees.

Major activities

The federal crop insurance program entails (1) underwriting, actuarial, and program development activities involving the development of crop insurance programs and the establishment and maintenance of rates and coverages for crops in each county, (2) marketing and collection activities covering all aspects of marketing, including the development of marketing policies and programs and the collection of premiums, and (3) contract servicing and claims activities which include servicing the insurance contracts, inspecting crops, and adjusting claims for losses (the assessment and determination of the amount and cause of the loss in crop yield).

Insurance coverage

Federal crop insurance offers protection to agricultural producers from losses caused by unavoidable natural hazards, such as insects, plant diseases, fire, hail, drought, excessive moisture, freeze, wind, and other weather conditions. It does not insure profit for the farmer or cover avoidable losses resulting from negligence or failure to observe good farming practices.

The 1980 act requires that the federal crop insurance be provided at various coverage levels up to 75 percent of the farm's recorded or appraised average yield and at various price elections (dollar value per unit of production) with one being not less than 90 percent of the projected market price for the commodity involved. As a result, FCIC offers crop insurance at three coverage levels with three different price elections, giving the farmer nine insurance options.

In obtaining insurance, the farmer is guaranteed a certain amount of production--in bushels or pounds--per acre (referred to as the yield guarantee). For most commodities, farmers can select a yield guarantee from three coverage levels--50, 65, or 75 percent of the average yield calculated for each farm or area. For example, if the average yield for corn is set at 100 bushels per acre and the 65-percent yield guarantee option is selected, FCIC would pay for anything less than 65 bushels per acre produced.

The farmers can select in advance how much money per bushel or pound they will receive if their production is less than their yield guarantee. Before the planting season, FCIC establishes three price levels for the commodity involved. The highest level must be 90 percent of the estimated market price at harvest time; the other two levels are at lesser amounts. For example, the price elections available for corn grown in 1981 were $2.70, $2.00, and $1.70 per bushel. Other commodities had different price levels.

To illustrate how crop insurance operates, assume that a farmer with an average yield of 100 bushels of corn per acre selects the 65-percent yield guarantee option and the $2.70 per bushel payment level. If a natural disaster occurs and the actual production drops to 20 bushels per acre, the farmer would have an insured loss of 45 bushels (65 percent of 100 bushels less the 20 bushels actually produced). FCIC would pay the farmer $121.50 ($2.70 x 45 bushels) for each acre insured.

Financing

FCIC receives funds from three sources--capital stock subscriptions from the U.S. Treasury, premium income from producers, and appropriations for federal premium subsidies and administrative and operating expenses.

The 1980 act authorizes capitalization of $500 million, of which fiscal years 1982 and 1983 appropriations provided $400 million for capital stock subscriptions. The capital stock is to provide FCIC with necessary working capital as well as a reserve to cover losses when premium income and/or reserves are insufficient.

Existing legislation provides that premiums for insurance be set at such rates as the Board deems actuarially sufficient to cover claims for losses on such insurance and to establish as expeditiously as possible a reasonable reserve against unforeseen losses. Consequently, FCIC cannot include in the base used to establish premium rates any costs other than cost of claims (indemnities) paid to those it insures plus a factor to accumulate a reserve. Although administrative costs cannot be included in the base, the Congress has authorized the use of premium income to pay some of FCIC's administrative costs in lieu of appropriating enough funds to cover all administrative costs. In addition, certain nonadministrative costs, such as direct cost of adjusting losses, have been paid out of premium income from time to time.

The 1980 legislation authorizes funds to be appropriated to cover FCIC's administrative and operating costs, including items such as agents' and brokers' commissions, premium subsidies paid by FCIC, and the direct cost of adjusting losses. The legislation also provides that these items may be paid from premium income and other FCIC funds and that any such payments be restored by appropriations in subsequent years. Information on FCIC's administrative and operating expenses is on page 10.

OBJECTIVES, SCOPE, AND METHODOLOGY

Insurance deficits for crop years 1980-82 (see p. 10), coupled with yearly increasing appropriation requests to finance the expanded program, prompted the Congress to raise various concerns about FCIC's marketing strategies, the actuarial soundness of its insurance program, and other program aspects. We decided to update our July 1981 analysis of FCIC's progress in implementing the 1980 act[2] because of the various concerns expressed by committees and Members of Congress during oversight and appropriation hearings.

Our objective in this review was to evaluate how FCIC was carrying out the 1980 act's requirements. We determined and evaluated the reasonableness of (1) the basis used in establishing the various rate schedules for compensating the private sector for delivering and servicing crop insurance, (2) the basis for, and subsequent changes to, the formulas used to distribute the gains and losses on the insurance written under the reinsurance program, (3) the methods used to monitor and account for program operations, and (4) FCIC's actuarial procedures and the operational strategy to improve the actuarial soundness of its programs. Actuaries employed by our office helped evaluate the formulas used to distribute the gains and losses under the various reinsurance agreements.

We made our review primarily at FCIC's Washington, D.C., and Kansas City offices. Also, we visited one FCIC regional office, two agency sales and service companies,[3] four reinsured companies, and three state insurance commissioners who exercise certain licensing and monitoring requirements over the reinsured companies we visited. In addition, we interviewed (by telephone) officials of five other reinsured companies that first participated in crop year 1982; directors of four FCIC field actuarial

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[2]Analysis of Certain Operations of the Federal Crop Insurance Corporation (CED-81-148, July 30, 1981).

[3]These are private insurance companies and associations that contract with FCIC to provide insurance sales and services. They are compensated on a commission basis.

offices; and the Chairman of the Rate Evaluation Committee sponsored by the Crop Hail Insurance Actuarial Association (CHIAA) located in Chicago, Illinois. CHIAA processes financial and statistical data on crop premiums and losses for private insurance companies that FCIC reinsures.

We did not use a statistical basis to select the agency sales and service companies and the reinsured companies we visited. The purpose of our visits was not to make any projections but to obtain data, primarily through interviews, on the companies' operations relating to the federal crop insurance program.

We selected the four reinsured companies because their total premiums accounted for about 27 percent of the total federal crop insurance written by all (17) reinsured companies for crop year 1981. These four companies also accounted for about 27 percent of the indemnities paid to producers by all reinsured companies for crop year 1981.

We reviewed federal crop insurance legislation and pertinent FCIC regulations, policies, procedures, records, and data. We analyzed various research studies and reports relating to the soundness of FCIC's actuarial structure. We made this analysis to determine whether and how previous concerns about FCIC's actuarial procedures and assumptions had been addressed. We did not try to determine the validity of voiced concerns or to develop solutions for perceived weaknesses in actuarial procedures. The studies and reports we analyzed are listed in appendix I.

We considered the results of USDA's Office of Inspector General (OIG) audit work in such areas as loss adjustment and contract services, marketing activities, reinsurance program, and internal controls. In addition, we considered the results of our audit of FCIC's financial statements for fiscal year 1981.[4]

We made the review in accordance with generally accepted government auditing standards. The fieldwork was done during the period from December 1981 through November 1982 and encompassed the various operating procedures applicable for crop years 1981 through 1983. Where appropriate, we obtained updated financial and operating data. We experienced some difficulty in making our review due to FCIC's reorganizations, changes in key management officials, and numerous and continuous changes in program procedures and policies.

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[4]Audit of Federal Crop Insurance Corporation's Financial Statements - Fiscal Year 1981 (GAO/AFMD-83-74, July 22, 1983).

CHAPTER 2

PROGRESS MADE IN IMPLEMENTING THE NEW INSURANCE PROGRAM,

BUT IMPROVEMENTS ARE NEEDED

FCIC has made substantial progress in implementing the 1980 act, but it still has many obstacles to overcome. FCIC's progress has included expanding the program to provide nationwide coverage for the six disaster payment program commodities, establishing a program of individualized yield coverages, and involving the private sector in program delivery. Program changes have resulted in increased sales, but costs have also increased. Moreover, a number of weaknesses in the way FCIC instituted these changes will significantly affect the program's future cost and its actuarial soundness.

We believe that because of the complexity of the problems, it will be several years before a cost-effective insurance program can be provided to the nation's farmers. In the meantime, the Congress will need to keep a close watch on FCIC's progress in improving its operations in order to continually assess the role of crop insurance as a key income protection mechanism for the nation's farmers.

EXPANSION OF INSURANCE COVERAGE

Before the 1980 act was passed, FCIC provided crop insurance in 1,676 counties covering 4,629 county crop programs (coverage of one crop in one county constitutes one county crop program). Following the act's passage, FCIC established an initial goal of expanding insurance coverage for the six disaster program commodities to 250 additional counties each year through 1984. However, so that the disaster payment program could be phased out quickly, the goal was revised to provide coverage for these commodities in all counties nationwide by crop year 1982.

FCIC expanded the insurance coverage for crop year 1981 to an additional 252 counties and 1,340 county crop programs. For crop year 1982, insurance coverage was made available in an additional 1,071 counties. This expansion resulted in increasing the total number of county crop programs by 8,529. The following table shows the extent of expansion by crop year for the disaster and nondisaster program commodities.

Type of commodities	New county crop programs 1981	1982	Total
Disaster program commodities	841	7,938	8,779
Nondisaster program commodities	499	591	1,090
Total	1,340	8,529	9,869

Beginning in crop year 1982, the expansion resulted in insurance coverage in virtually every county where the six disaster program commodities were grown. For all commodities, insurance coverage was available in a total of 2,999 counties for a total of 14,498 county crop programs.

The 1980 act required that FCIC provide different coverage levels up to 75 percent of average yield and to offer various levels of price elections with one being not less than 90 percent of the projected market price for the commodity involved. The 75-percent coverage level was available for nearly all commodities for crop year 1981. According to the Chief of FCIC's Statistical Services Branch, the 90-percent price election may have been reflected in some crop year 1981 offers, but for the most part, it was first worked into the actuarial tables for crop year 1982 offers.

ESTABLISHMENT OF AN INDIVIDUAL YIELD COVERAGE PROGRAM

FCIC established an individual yield coverage (IYC) program for crop year 1982. This program is intended to provide an alternative to farmers who can prove their crop production is higher than the coverage offered by FCIC's regular crop insurance. The crop year 1982 program was made available in all counties for spring-planted disaster program commodities and soybeans. The program was expanded in crop year 1983 to include the fall-planted disaster program commodities, oats, and other selected commodities.

As of October 21, 1983, only 711 IYC policies had been sold nationwide for crop year 1982. This was less than 1 percent of the regular crop insurance policies sold during crop year 1982 for those crops eligible for IYC coverage. However, FCIC made various changes in the IYC program for the 1983 crop year to increase participation.

SWITCH TO THE PRIVATE SECTOR

Prior to the 1980 legislation, FCIC sold and serviced crop insurance policies using its own employees (primarily part-time employees), some employees of USDA's Agricultural Stabilization and Conservation Service (ASCS), and a small number of individual independent agents. FCIC employees adjusted claims for losses, although a few contract claims adjusters were used on an experimental basis.

FCIC believed that to implement the expanded insurance program and for it to be successful in replacing the disaster payment program, a high farmer participation rate would have to be achieved rapidly. FCIC also believed that because of its personnel ceilings, reaching the high level of participation desired would require heavy reliance on the private sector. FCIC interpreted this shift to the private sector as being in accordance with congressional intent as stated in the 1980 act that FCIC's Board of Directors shall

> ". . . to the maximum extent possible . . . contract with private insurance companies . . . and encourage the sale of Federal crop insurance through licensed private insurance agents and brokers . . . ."

In switching to the private sector, FCIC developed an Agency Sales and Service Agreement and a Standard Reinsurance Agreement. Under an Agency Sales and Service Agreement, an insurance company or agency (commonly referred to as a master marketer) agrees to sell and service insurance for FCIC. The master marketer is responsible for recruiting, training, and paying sales commissions to its agents.

Under a Standard Reinsurance Agreement, an established insurance company enters into a financial arrangement with FCIC to sell, service, and adjust the losses on the policies the company sells. The company, acting as an insurer for policies issued in its name, is able to obtain reinsurance coverage from FCIC as protection against most of the risk that could result from losses incurred in selling crop insurance.

Under these delivery systems, exclusive territories are not assigned. This means that agents compete with each other in many areas, counties, or states. In areas where an adequate private sales and service force is not available, ASCS sells and services the federal crop insurance through its county offices.

INCREASE IN SALES AND INDEMNITIES

The total dollar sales for the various delivery systems increased significantly from 1980 to 1982. For example, for 1980 sales premiums totaled only about $158 million but increased to an estimated $399 million for 1982. The amount of insurance in force more than doubled during this period, increasing from about $3 billion for 1980 to over $6 billion for 1982. Sales premiums for 1983 and 1984 are estimated to be about $680 million and $850 million, respectively. The following table shows the detailed information on the changes and growth in the sales volume by each delivery system.

Insurance Sales for Each Delivery System by Crop Year

Delivery system	Crop year 1979	1980	1981	1982	1983[a]	1984[a]
	(millions)					
FCIC/ASCS employees	$ 83.7	$130.2	$137.9	$ 0.4	$ -	$ -
Independent agents	19.7	27.5	227.3	34.9	34	-
Master marketers	-	-	1.2	285.8	306	425
Reinsured companies	-	-	12.8	77.9	340	425
Total sales[b]	$103.3	$157.6	$379.2	$399.0	$680	$850
Number of acres insured (in millions)	21.5	26.5	45.4	44.2	85	106

[a]Estimate.

[b]Totals may not add because of rounding.

The claims paid (indemnities) also increased from about $356 million for 1980 to an estimated $529.5 million for 1982, as of September 1983. As the following table shows, FCIC incurred underwriting losses (indemnities exceeded premiums) for crop years 1980-82.

Premiums, Indemnities, and Loss Ratio by Crop Year

	Crop year 1979	1980	1981	1982
Premiums (millions)	$103.3	$157.6	$379.2[a]	$399.0[a]
Indemnities (millions)	$ 67.2	$356.4	$439.6	$529.5[b]
Loss ratio	0.65	2.26	1.16	1.33[b]

[a]Includes federal premium subsidy.

[b]Latest available data as of Sept. 30, 1983.

INCREASE IN PROGRAM COSTS

The cost of operating the federal crop insurance program has increased significantly since passage of the 1980 act. FCIC receives funds from the U.S. Treasury, premium income from producers, and appropriations for federal premium subsidies and administrative and operating expenses.

As the following table shows, FCIC's administrative and operating expenses increased significantly from about $38 million for 1980 to $116 million for 1982 and are estimated at $279 million for 1984.

	Fiscal year				
	1980	1981	1982	1983[a]	1984[a]
	(millions)				
Administrative and operating expense	$38	$92	$116	$236	$279
Premium subsidy	-	-	57	116	170
Restoration of prior year obligations	-	-	-	28	25
Total	$38	$92	$173	$380	$474

[a]Estimate.

Because the selling period for fall-planted crops had already passed when the 1980 act became law, FCIC relied on the federal delivery system and independent agents for crop year 1981 sales. The phaseout of the FCIC delivery system began in early 1982 and the carryover business (policies in force the preceding crop year and automatically renewed) was transferred to the private sector. We estimate FCIC will pay commissions on about $103.4 million worth of premiums previously generated by the federal delivery system and transferred to the private sector. Although an exact amount of the additional costs that FCIC incurred for servicing these policies through the private sector cannot be determined, we estimate that the additional costs will fall between $6.2 million and $16.8 million.

MORE ATTENTION IS NEEDED IN KEY AREAS

A successful crop insurance program depends on three interdependent insurance functions:

- --the establishment of actuarially sound insurance offers with rates and coverages set at levels commensurate with the likelihood of insured losses;
- --the delivery of high-quality sales and service to farmers through an aggressive marketing force at a cost to FCIC that is equitable to both the federal government and the private sector; and
- --a competent and reliable cadre of loss adjusters to equitably settle claims.

The following chapters discuss improvements needed in two of the three functions. We did not review the loss adjustment function because the OIG has covered this area in the last several years.

In carrying out the expansion program, FCIC may have compromised the actuarial soundness of its crop insurance program because it (1) deferred normal review and evaluation activities while it devoted its limited resources to the expansion program, (2) delayed development of various actuarial reports needed to analyze past experience, and (3) did not do the research necessary to resolve longstanding concerns about its actuarial procedures. FCIC took many shortcuts in developing the actuarial tables and rates for newly added crops without the benefit of a full analysis. These matters are discussed in chapter 3.

In trying to move rapidly to private sector delivery of the expanded crop insurance program, FCIC did not make the necessary evaluations or establish essential quality controls to assure that it was achieving the most efficient and cost-effective crop insurance program. The compensation rates for the marketing and loss adjustment functions that were transferred to the private sector were based on FCIC's experience under its previous program and could result in excessive costs to FCIC. This is discussed in detail in chapter 4.

In addition, FCIC adopted the reinsurance concept as its primary mode of operation without determining whether this was an efficient and cost-effective way to deliver the insurance. Further, FCIC revised and liberalized the initial gain/loss sharing formula, increasing the reinsured insurance companies' potential for gains while decreasing their risk for losses. This could have a significant impact on FCIC's ability to accumulate reserves for the program. This is discussed in more detail in chapter 5.

AGENCY COMMENTS

In commenting on a draft of this report (see app. III), USDA said that our comprehensive review recognizes the key issues that faced USDA's and FCIC's management as they implemented the 1980 act. It said that adapting the crop insurance program to its substantially increased role was no easy matter. USDA said that the report discusses many of the trade-offs that had to be made to facilitate the program's expansion. It added that the report also correctly concludes that management attention is now needed in several key areas as a second phase in achieving a sound and well-managed insurance program.

USDA's specific comments on the matters discussed in chapters 3, 4, and 5 are included in those chapters.

CHAPTER 3

ACTUARIAL PRACTICES NEED IMPROVEMENT

The actuarial soundness of the crop insurance program may have been compromised because FCIC (1) deferred normal review and evaluation activities while it devoted its resources to the expansion program, (2) delayed development of various actuarial reports needed to analyze past experience, and (3) had not done the research necessary to resolve longstanding concerns about its actuarial procedures.

We sent a letter to FCIC's Manager on August 10, 1982, informing him of our concerns about FCIC's efforts to improve the crop insurance program's actuarial soundness. In his November 1982 response, the Manager indicated that FCIC was in the process of securing outside actuarial assistance and contracting for a review of its actuarial methodologies and a review of the data base requirements for developing improvements to its management information and planning system. On April 5, 1983, FCIC contracted with an actuarial consulting firm.

We believe this action will help to resolve many of the concerns about FCIC's actuarial methodologies and data base and its management information system. However, resuming normal actuarial review and evaluation activities depends on the timeliness of filling authorized staff positions, developing and obtaining needed actuarial reports, and the extent of and timetable for any future expansion activities. In addition, we believe FCIC needs to consider using actual crop yields to establish homogeneous groupings of producers who have similar yields and similar relative risks.

In view of the importance and effect of some of the concerns itemized in our letter to the Manager, many of the same concerns are being discussed in this chapter to amplify on our previous observations and to address the Manager's response.

DEFERRAL OF NORMAL ACTIVITIES MAY HAVE COMPROMISED THE PROGRAM'S ACTUARIAL SOUNDNESS

Due to the expansion program's magnitude, FCIC's Actuarial Division concentrated its staff resources on the expansion program; consequently, the division's normal review activities were deferred and/or curtailed. As a result, the actuarial soundness of FCIC's insurance program may have been compromised because

--premium rates and coverage levels for crop years 1981-82 had not been updated to reflect the latest available experience,

--special procedures had been used for updating the county crop insurance programs for crop year 1983, and

--premium rates and coverages had been established for some new crop programs without proper review and analysis.

Expansion effort prevented maintenance of normal activities

Under its normal operating procedure, FCIC's Actuarial Division annually reviews insurance experience and updates the coverage levels and premium rates on about one third of the county crop programs (3-year reviews). These periodic updates also consider yield trends and general FCIC policy changes and result in rates being adjusted accordingly.

In addition, FCIC's field actuarial offices annually review about one fifth of the county crop programs' structures (5-year reviews). In determining yield guarantees, the field actuarial offices determine the expected yield for each crop in each area within each county. The 5-year reviews involve detailed evaluations of each county's area structure; that is, whether the county has an appropriate number of areas and whether their boundaries should be changed. Actual yield data are frequently not available by county, but such data as are available are considered. Usually, the area structures are evaluated on the basis of factors such as soil composition, climate, topography, farmers' capital investments, and farming practices. These evaluations result in changes, if needed, in the area structures.

The Actuarial Division did not do any of the planned crop program updates (3-year reviews) that would have been effective for crop years 1981 and 1982 primarily because the division focused its efforts on expanding program coverage. A comparison of the programs offered for crop year 1980 with those for crop year 1982 shows that the number of counties covered nearly doubled, increasing from 1,676 to 2,999, while the number of county crop programs offered more than tripled, increasing from 4,629 to 14,498. During this same general time frame, the Actuarial Division's permanent, full-time staff, excluding its research and development staff, increased from 105 to 142, an increase of about 36 percent.

According to the division's Acting Director, crop year 1984 would be the earliest crop year for which a normal complete update of county coverage levels and premium rates could be done. As a result, the coverages and rates for crop year 1981 and 1982 insurance offers were not as current as they might have been. For example,

--insurance offers for the grain, peanut, and tobacco crops were generally based on losses and yields experienced through crop year 1978 or earlier;

--insurance offers for the cotton program were based on experience through 1975; and

--insurance offers for some fruit and vegetable crops were based on experience through 1963 or earlier.

The field actuarial offices were able to maintain some of their scheduled reviews of area structures (5-year reviews). But redirecting considerable staff time to developing programs for expansion counties caused them to fall behind in the review of previously participating counties' area structures.

Because the 1980 act requires yield guarantees of up to 75 percent of average yields, these structures may no longer reflect a proper distribution of risks. The Director of FCIC's St. Paul Field Actuarial Office explained that many older county area structures were established when the maximum yield guarantees were only 50 or 60 percent of average yields. At these lower yield guarantees, producers with significant yield variability had to incur substantial losses in average production in order to cause FCIC to pay a loss claim. The same degree of variability in average yields under the current 75-percent yield guarantee can result in larger and more frequent loss claims. Accordingly, inaccuracies in delineating area structures for the lower yield guarantees now need to be corrected.

The Director said that to correct this situation, the older county area structures were being reviewed to increase the number of areas. However, he said, his office was being handicapped in resuming its reviews because of delays in availability of appropriate reports identifying crop years 1980 and 1981 loss experiences by specific locations within each area. The 1980 and 1981 reports are essential for good analysis because they reflect the first years in which additional coverage levels were offered. Also, the crop year 1981 reports reflect the first year of experience under the 75-percent yield guarantee.

At the time of our fieldwork, indications were that these reports would not be available until October or November 1983. Therefore, crop year 1985 would have been the first crop year for which area structures could have reflected a complete analysis of crop years 1980 and 1981 insurance experiences. In October 1983, we were informed that all of these reports would not be available until March 1984.

<u>Special procedures used to restore program currency</u>

Because the normal updates of the county programs were deferred, the Actuarial Division developed alternative procedures to incorporate crop years 1980 and 1981 loss experiences into the premium rates for crop year 1983 and to correct the "suspected" inaccuracies in premium rates for the three coverage levels. Accordingly, the Actuarial Division established procedures under which the field underwriters were to adjust crop year 1983 premium rates based on the cumulative ratio of indemnities to premiums (i.e., loss ratio) experienced by each county and its respective state through crop year 1981. Thus, the premium rate adjustments in each county varied depending on the county and the state loss ratio.

For example, the procedure used to adjust the premium rates for the spring-planted crops was based on limited research by the insurance industry-sponsored Rate Evaluation Committee. The adjustments were necessary because FCIC's actuarial staff had been unable during the expansion period to research the extent of the "suspected" inaccuracies in premium rates. The Acting Director said that the Rate Evaluation Committee had analyzed the yields of a number of Illinois corn and soybean producers to determine the approximate difference in loss ratios that could be expected at various yield guarantee levels. As a result of this limited research, the Committee believed that the premium rates for the 50-percent coverage level were too high, while the rates for the 75-percent coverage level were too low. Premium rate adjustments to reflect more recent loss experience and the desired differential in the coverage levels' premium rates were then consolidated into an adjustment table. This table provided for the following range of changes to previously established premium rates.

Coverage levels		Percentage increase (decrease) in premium rates	
Level	Percent of yield guaranteed	Minimum	Maximum
3	75	3	20
2	65	(6)	9
1	50	(1.8)	(16)

FCIC estimated that these adjustments would increase nationwide premium income by about 12 to 14 percent for crop year 1983.

The Acting Actuarial Director said that the procedures used to adjust FCIC's premium rates for crop year 1983 may have been less statistically valid than the regular procedure and could have resulted in some inequitable premium rate changes. However, he said that because area structure reviews had been deferred, FCIC clearly needed to incorporate some of the unfavorable loss experience for crop years 1980 and 1981 into its 1983 premium rates and he believed this was the best approach under the circumstances. He indicated that a more thorough analysis of actual crop years 1980 and 1981 loss experiences by coverage level would not be possible until after the reports containing those data became available.

Some expansion county insurance offers may have been hastily developed

The Acting Actuarial Director said that under the pressures of the expansion program, some county crop programs may have been established too hastily. He said that some of the problems that indicate a hastily developed program were surfacing and needed to be resolved. He cited the following problems:

--In some cases, programs in adjoining counties had been established with rates and coverages that were inconsistent and did not provide a smooth transition of rates and coverages over geographic boundaries.

--Some county area structures had been established on the basis of cursory soil analyses and limited field reviews.

--Counties had generally been divided into three areas, whereas more areas may have been appropriate.

According to the division's statistical staff, the size and rate of the expansion generally prevented them from following their usual review procedures to assure the quality and consistency of insurance offers. Field directors also told us that because of staff limitations, some shortcuts had to be taken. They added, however, that another consideration in taking shortcuts was that the county crop programs developed during the expansion were primarily for areas with relatively low production. Areas with high production had already been covered by insurance before the expansion. As a result, the field actuarial staff devoted less time than normal to develop new county crop programs. In some cases, they used the area structures for other crops already insured in the same county and/or simply used an established area structure from an adjacent county that was already insured.

FURTHER EXPANSION COULD PREVENT RESUMPTION OF NORMAL REVIEW ACTIVITIES

According to the Acting Actuarial Director, FCIC had not established a firm schedule for further expansion as of July 1982. However, he said that the previous expansion plans had called for adding 3,000 county crop programs each year for 5 years starting with crop year 1983 and for doubling the number of commodities insured over the next 5 to 10 years. He said that the expansion for crop year 1983 was scaled down to 916 additional county crop programs. In October 1983, he said that about 2,400 county crop programs would be added for crop year 1984 but that no firm schedule had been established beyond 1984.

The Acting Actuarial Director told us that the division needed a chance to review what it already has in place, to assist outside consultants in the review of actuarial operations, and to develop automated procedures to establish county rates and coverages. The Actuarial Division was authorized a permanent, full-time staff level of 194 employees. As of October 1, 1983, the division had filled 178 of the 194 positions. The Acting Director stated that the full resumption of the Actuarial Division's normal review activities was contingent on filling the remaining 16 authorized positions.

We believe that any further expansion should be carried out at a rate that will not detract from the maintenance of normal review activities; i.e., expansion should occur at a rate that will permit the degree of review needed.

ACTUARIAL INFORMATION SYSTEM NEEDS ATTENTION

The 1980 act required new and/or modified programs to collect and report data in the actuarial information system and revisions in the format of the reports depicting the insurance experience. However, the changes to the actuarial reports had not been completed; some reports were not expected to become available before March 1984. As a result, resumption of the division's normal review activities could be delayed even further. If there are no further delays, crop year 1985 insurance offers will be the earliest ones in which the loss experiences for crop years 1980 and 1981 can be assimilated into a statistical updating of county premium rates. Even in this case, the data will not be fully incorporated into all crop programs before crop year 1988 since FCIC operates on a 3-year cycle.

A consulting firm had questioned the FCIC actuarial information system's capability to provide all necessary information. Also, criticisms had been made within FCIC about the system's ability to provide enough analytical information for management decisionmaking. In April 1983, FCIC obtained an actuarial consulting firm to review the adequacy of both its general data processing system and its actuarial operations.

Required changes in actuarial information system were delayed

The 1980 act's changes in the insurance program necessitated revisions in FCIC's actuarial information system. These changes required new and/or modified programs to collect and report data relative to the three yield guarantee levels, higher price election, subsidized premiums, hail exclusion, and the shift toward private industry involvement. As a result, FCIC requirements for information on acreage reporting, loss claims, marketing, and actuarial experience accumulation were all affected by the act. The reporting system for accumulating and displaying actuarial data on FCIC's insurance experience was especially affected. The format of at least 14 reports had to be changed and the presentation of FCIC insurance offers had to be modified.

Both the Data Automation and Actuarial Divisions have a branch responsible for developing FCIC's actuarial information system. The two branch chiefs told us that staff shortages, the volume of changes necessitated by the revised insurance program, and the diversion of resources created by FCIC's expansion program combined to put both branches behind in their development of reports depicting FCIC's insurance experiences for crop years 1980 and 1981.

As a result, as of November 1982, only 2 of the 14 actuarial reports requiring revisions had been completed. These two reports provide data on the extent of participation and the distribution of selections made by insureds for price and coverage level elections. Inquiries into the status of the 12 remaining reports, which contain loss data, indicated that the dates these reports were to become available had slipped significantly from the schedule established in March 1982. This schedule indicated that the Actuarial Division was to have completed development of report format specifications for the 12 remaining reports as of August 1, 1982. It also indicated that the Data Automation Division was to have five initial reports available on November 1, 1982, with the last reports being completed by May 1, 1983.

As of November 1982, the Actuarial Division had completed the report format specifications on only 7 of these 12 reports for insurance experiences for both the 1980 and 1981 crop years. Specifications on two additional reports had been completed for crop year 1980 insurance experience only.

The Actuarial Division's delay in developing report format specifications had extended the Data Automation Division's target dates for completing the remaining reports. The first 2 of these 12 reports were not expected to be available before December 1982, 1 month later than the first 5 reports were to have been completed. The other reports were expected to be available as late as October or November 1983. Our followup in October 1983 disclosed that only five of these reports had been completed; the remaining reports were expected to become available by March 1984.

Delays in completing reports can affect actuarial activities

Delays in completing reports on insurance experiences for crop years 1980 and 1981 affect the currency of crop insurance programs and may have delayed the Actuarial Division's resumption of review activities essential to maintaining an actuarially sound insurance program. For example, the reports that had not been completed included the experience data used to evaluate and update county average premium rates and the data required to evaluate the adequacy of the county area structures.

The Actuarial Division's procedure for reviewing and updating county average premium rates is essentially a manual routine. The automated data on historical loss experience for each county crop program is written on spread sheets for evaluation and computation of county average premium rates. This manual procedure of updating county average premium rates also updates crop programs on a rotational basis. Each crop program is scheduled for review every third year.

The report containing the needed data was scheduled to be completed in December 1982, which meant that the rework of county average premium rates could not normally be incorporated into insurance offers before crop year 1984 for spring-planted crops and crop year 1985 for fall-planted crops. Our followup in October 1983 disclosed that the report was not completed until September 1983, thus delaying the updating even further. If the 3-year rotational schedule is continued, it could be crop year 1988 before the Actuarial Division, employing its normal statistical updating procedures, can incorporate all of crop years 1980 and 1981 loss experiences into FCIC's insurance offers.

Actuarial information system does not provide management sufficient analytical data

The consulting firm of Ernst and Whinney, in its review of FCIC actuarial operations in June 1982, concluded that FCIC's management information system did not provide all the information necessary to analyze underwriting results. Ernst and Whinney recommended that FCIC review its management information reports in detail to ascertain additions and modifications needed to facilitate management decisions.

The Director of FCIC's Kansas City Operations told us that a wealth of statistics is collected in the data base but that it was being underused. He said that FCIC had not been able to retrieve and present the data in a timely manner that provides keen analytical insights into the problems with FCIC's operations. He also said that much of the data that had been retrieved could be analyzed only through manual-type procedures. In his opinion, many analyses needed to be made to verify whether FCIC's assumptions and theories were correct regarding the mix of producers; the effect of changes in claims adjustment guidelines; the nature of the relationships among crop programs, county areas, counties, and states; and the effect these relationships should have on FCIC's premium rates and yield guarantees.

ACTUARIAL PROCEDURES MAY MAKE INSURANCE PROGRAMS UNSOUND AND UNATTRACTIVE

Concerns about FCIC's procedures to accumulate reserves and to establish county insurance offers have been raised in various studies since 1970 (see app. I); yet we noted that most procedures had not been changed to address these concerns. We believe these procedures may have contributed to actuarial unsoundness and, in some cases, may have hindered FCIC's efforts to attract lower risk producers into the program.

In recognition of these concerns, FCIC secured an outside actuarial firm in April 1983 to review its actuarial methodologies and determine data requirements for improving the actuarial soundness of its insurance programs.

Procedures to accumulate reserves require definition and refinement

In setting premiums to cover claims for losses and establish a reserve, FCIC includes a variable factor to accumulate reserves against catastrophic losses and a uniform multiplier to accumulate an administrative reserve equal to 10 percent of premiums. Various studies have criticized FCIC's actuarial procedures because they do not define what constitutes a reasonable reserve or the period of time over which this reserve should be accumulated. These studies have concluded that FCIC's actuarial procedures may result in excessive reserve accumulation for some crop programs and too little for others while also accumulating insufficient overall reserves.

We asked FCIC's Manager about these concerns with the reserve procedures in our August 1982 letter report. In response, he acknowledged these concerns and indicated that both internal and external resources would be directed toward evaluating these procedures.

Insurance offers could be improved through use of actual yield data

FCIC's actuarial procedures for grouping producers within each county according to their estimated yields have also been criticized in the various studies. The criticism is that the procedures establish groups that are too large rather than discrete groups that best represent the range of expected yields and the risks associated with the frequency and magnitude of producers' losses compared with their average yields. Such deviations are recognized only for previously insured producers through either discounts or surcharges to their basic rates based on their historical loss experience.

Discrete risk groups and rate factors to reflect yield deviations are necessary to develop crop policies that provide guarantees and rates that are equitable and economically attractive to all producers whether they have previously bought insurance or not. We believe that to accomplish this, FCIC needs to consider the gathering and use of producers' actual yields as the primary determinant in establishing homogeneous groupings of producers who have similar yields and similar relative risks.

A 1979 report on an internal working group's evaluation of FCIC's field underwriting activities[1] stated that a model using the coefficients of variation for actual producer yields could be developed. According to the working group, the advantage of this approach is that it can be explained, calculated, and programmed into a computer. It would also establish direct, objective relationships between productivity and risk for individual producers and groupings of producers. However, a major drawback to this approach is the requirement for actual production data for each producer.

Programs for such crops as cotton, rice, peanuts, tobacco, apples, grapes, sugar beets, sugar cane, sweet corn, and peas have actual yield data which may be suitable for applying this underwriting tool. In these programs, FCIC uses actual yield data to update the average yields for each producer grouping; however, the variability in each producer's yield history has not been analyzed to determine the validity of a producer's assignment to a risk group or to evaluate the relative differences in risks among the groups.

For large programs, such as the primary grain crop programs, FCIC relies on its underwriters to estimate the yields for producer groupings. These estimates are based in part on similar soils, weather characteristics, and management practices. The underwriters must also estimate the effect that differences in these factors should have on the relative production risk of each grouping. This approach to establishing these yield/risk relationships generally presupposes that certain relationships always exist until subsequent insurance experience proves otherwise. These general assumptions are that all producers with similar average yields have the same risk and that groups with higher average yields have proportionately lower risks. FCIC has established a system to track the loss experience of each producer to provide individual discounts or surcharges to basic premium rates for producers who are exceptions to the general underwriting assumptions.

FCIC has taken a first step in building a data base of actual yields through the individual yield coverage program. However, participation in this program has been very limited. (See p. 8.) Unless participation is expanded to all insured producers, the resultant data base of actual yields will not be sufficient to address the needs of those producers that choose to remain in FCIC's traditional programs and/or decline insurance entirely.

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[1]Federal Crop Insurance Corporation Working Group on Individual Classification, 1979.

CONCLUSIONS

The attractiveness and integrity of FCIC's crop insurance program may have been compromised during the expansion period. It will remain so until the Actuarial Division's staff can (1) incorporate more recent yield and loss experience into all county crop insurance programs through normal statistical updating procedures, (2) evaluate and appropriately revise county area structures that are not consistent with the degree of increased risk associated with the higher coverage level requirement, and (3) review those expansion-period crop programs and county area structures in which inaccuracies are suspected and correct any that may be found. The unavailability of appropriate reports on crop years 1980 and 1981 insurance experiences has hampered and delayed Actuarial Division corrective actions.

The timeliness with which the actuarial staff can address the above issues depends on the timeliness with which the Actuarial Division fills its authorized staff vacancies and the extent of any future expansion activities and the timetable within which they are carried out. The Actuarial Division's authorized level of staff and normal review procedures are adequate to correct the above concerns about the currency and appropriateness of FCIC's insurance program, if the division staff's efforts are not diverted from this purpose to further expand the scope of FCIC's crop insurance program.

FCIC's actuarial information system has not provided all the essential information for informed decisionmaking and improved analytical insight into FCIC's actuarial assumptions and methodologies. Also, FCIC's actuarial procedures to accumulate reserves may treat some producers inequitably and may have contributed to insufficient reserve accumulation. An essential first step to improve these procedures is that FCIC define its reserve requirements consistent with an intent to achieve equity and sufficiency. FCIC has recognized the validity of these concerns and has obtained outside actuarial assistance to define and improve its actuarial information system and to evaluate its reserve requirements.

FCIC's county insurance offers can be improved through analytical techniques that use actual yield data to indicate the relative productivity and risk differences of producers and producer groupings in relation to a county crop program's average yield and risk. Increased use of such underwriting tools may require that FCIC obtain actual yield data not now available on all crop programs. However, without obtaining such data, FCIC's ability to make such analyses will be limited, and in turn its ability to make substantial improvements in the accuracy and economic attractiveness of its county insurance offers may be restricted.

RECOMMENDATIONS TO THE SECRETARY OF AGRICULTURE

We recommend that the Secretary of Agriculture direct FCIC's Board of Directors and Manager to

- --moderate any further expansion so that it will not detract from the Actuarial Division's ability to update the crop insurance offers;

- --correct any inaccuracies that may be found in FCIC's recently established county insurance offers and, if necessary, correct its older county insurance offers that may be inappropriate in light of the increased risk that may be associated with implementing the legislative requirements for higher coverages;

- --give increased attention to completing actuarial reports depicting crop years 1980 and 1981 insurance experiences in order that the review and updating of FCIC's crop insurance programs might be expedited; and

- --consider the potential for obtaining actual crop yield data and using such data to establish homogeneous risk groups and the proper relationships among each group's yields and risk rates.

AGENCY COMMENTS AND OUR EVALUATION

According to USDA (see app. III), actuarial modernization is the number one priority for FCIC in the next few years. It said that FCIC has taken necessary steps to modernize its actuarial system. It said that an actuarial consulting firm has reviewed the FCIC rating system. According to USDA, this review will provide a basis for instituting modern actuarial systems and make the review of the premium structure more current and reflective of actuarial experience. USDA also said that FCIC will implement an improved ratemaking system and develop an actuarial research function so that its ability to correctly establish insurance offers will be in tune with current and accepted actuarial practices and theories.

USDA added that the operating experience of 1980-82 had been incorporated into FCIC's computer system and that information in the initial reports received by the Actuarial Division would be incorporated into future rate revisions. It said that this, in conjunction with the development of the modernized ratemaking system, should provide an improved actuarial basis for premiums.

USDA also said that expansion of the IYC program would allow for more crop coverages to be based on actual crop yield data.

It said that the program to use actual production history on cotton and rice, the planned expansion of this program into other crops for fiscal year 1984, and an improved optional IYC program should speed the process.

We agree with USDA's decision to make modernization of the actuarial base FCIC's number one priority. The actions already taken or planned should, when implemented, improve the crop insurance program's actuarial soundness.

CHAPTER 4

FCIC NEEDS TO EVALUATE PRIVATE SECTOR

COMPENSATION RATES

The 1980 act encouraged the sale of federal crop insurance through private agents and brokers and directed FCIC to provide reinsurance, to the maximum extent practicable, to private insurance companies and others that would insure producers under plans acceptable to FCIC. To help bring this about, FCIC established specific compensation rates for the sales, service, and claims adjustment functions that were to be transferred to the private sector. These rates were based on (1) FCIC's experience under its previous program, which is not comparable to the current program, (2) inappropriate cost data, and/or (3) a basis not representative of anticipated business. We believe that FCIC needs to evaluate the various compensation rates in relation to the current premiums and the actual costs of providing those services contracted for.

ESTABLISHMENT OF COMPENSATION RATES

As part of its program to phase out direct federal delivery of crop insurance, FCIC established compensation rate schedules for each private delivery mode. The rate schedules were generally based on the services to be provided under each delivery mode and an analysis of what it had cost FCIC to provide the same services. In its analysis, FCIC used its fiscal year 1978 and 1979 costs and crop year 1979 premiums.

For crop years 1981 and 1982, FCIC generally offered the private sector three types of agreements--Sales and Service (independent agents), Agency Sales and Service (master marketers), and Reinsurance. The compensation rate schedules for each differed because each agreement required that different services be provided.

For crop year 1981, the compensation rate schedules for both the independent agents and the master marketers were on a sliding scale; that is, the rates decreased as the premium amount for a policy increased and exceeded certain dollar levels. For crop year 1981, the commissions paid to independent agents averaged about 10.9 percent of book premiums (the farmer-paid premium plus the federal subsidy) for both new and carryover business. Although only limited sales were made by master marketers for crop year 1981, the commissions paid averaged about 13.6 percent of book premiums for both new and carryover business.

Although FCIC made some changes in the independent agents' rate schedule for crop year 1982, the commissions payable were still based on a sliding scale. FCIC estimated that agent commissions under this agreement would average 14 percent of book premiums for new business and 7 percent for carryover business.

However, the master marketers' rate schedule for crop year 1982 was changed to provide straight compensation rates of 18 percent of book premiums for new business and 13 percent for carryover business. In addition, to provide an incentive to increase sales, marketing goals were established for each master marketer, and if such goals were reached or exceeded, the master marketer was to receive an additional 2 percent of book premiums as a bonus.

Under the Standard Reinsurance Agreement for crop year 1983, FCIC provides the private insurance company an administrative and operating allowance of 27 percent of the company's book premium for new business and 22 percent of book premium for carryover business. In addition, for claims adjustment work, FCIC pays the company 4 percent of book premium and 3 percent of total indemnities paid on the company's policies. These rates have remained in effect since they were established for crop year 1981.

BASING COMPENSATION ON A PERCENT OF PREMIUMS HAS SIGNIFICANTLY INCREASED PROGRAM COSTS

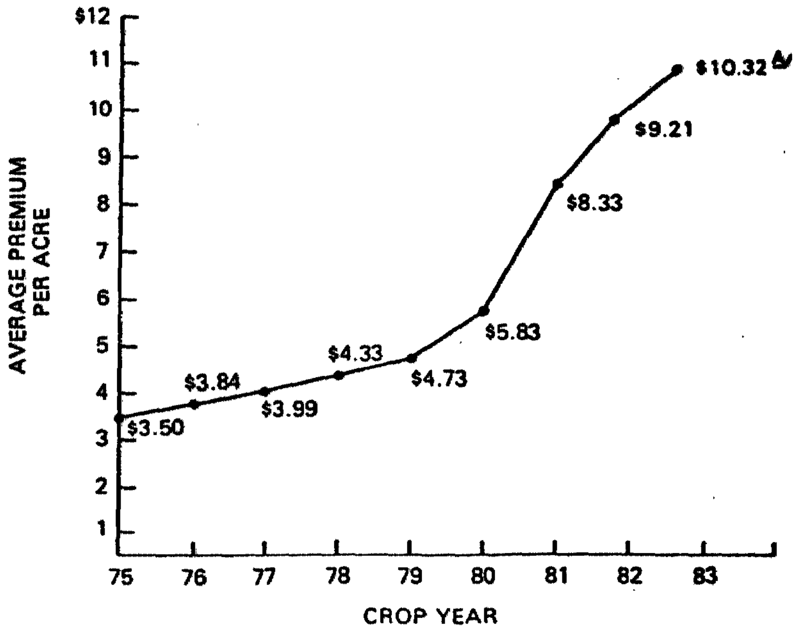
The percent-of-premiums method used to compensate the private sector for sales and service is generally consistent with the practice in the private insurance industry. In establishing the commission rates for the master marketers and the reinsured companies, FCIC used its crop year 1979 costs and premiums to calculate the percentage figures for these delivery systems. However, because the 1980 act requires higher levels of protection, the average premium rate per acre nearly doubled between 1979 and 1982, increasing from $4.73 per acre to $9.21 per acre. This in turn caused proportionately higher sales commissions. Likewise, the reinsured companies' compensation for adjusting losses also increased because the payment for loss adjustment work is computed, in part, as a percent of premiums.

In crop year 1979, FCIC generally offered only one level of coverage for a crop within a county, and although several price elections were offered, they were generally lower than under the new program. According to the Acting Director of the Actuarial Division and the Chief of FCIC's Statistical Service Branch, the increases in premium rates from 1979 through 1982 were due primarily to producers' selecting the higher coverage levels and price elections that became available and to market price changes.

For example, in 1979 only the 50-percent coverage level with three price options ($2.50 to $4.50 per bushel) was available for soybean crop insurance in Clay County, Minnesota; however, in 1982 three coverage levels (50, 65, and 75 percent) with higher price options ($4.50 to $7.00 per bushel) were available. The premium rates ranged from $1.40 to $2.50 per acre in 1979 compared with $2.30 to $8.00 per acre in 1982.

As shown in the following graph, the average premium rate per acre for all crops increased from $4.73 in crop year 1979 to $9.21 in crop year 1982 (or about 95 percent). Additionally, FCIC estimated that average premiums for crop year 1983 would increase 12 to 14 percent more because of adjustments to some premium rates.

INCREASE IN PREMIUM
PER ACRE BY CROP YEAR



a/ ESTIMATED PREMIUM PER ACRE FOR 1983 BASED ON 1982 BUSINESS ($9.21) PLUS A 12-PERCENT INCREASE

In developing the rate structures to compensate the private sector for sales and service, FCIC used 1978 and 1979 costs and 1979 premiums which, at the time, were the most recent data available. However, in developing the rates, no consideration was given to expected increases in premium rates due to offering higher coverage levels and higher price elections to producers as the 1980 act requires.

In developing the rate at which to compensate the reinsured companies for claims adjustment work, FCIC used the premiums, indemnities, and the direct claims adjustment costs for a 4-year period (1976-79). FCIC set the rates at 4 percent of premiums plus 3 percent of indemnities.

Because the rate structures are based on a percent of premiums, the amounts FCIC pays to the private sector to sell and service the federal crop insurance increase at the same rate as premiums. While the cost to sell a policy undoubtedly has increased due to inflation and the fact that the producer has many more options to consider under the expanded insurance program, we question whether such costs have increased at the same rate as the premium rates. As shown below, from 1979 through 1981 (the latest period for which data were available at the time we reviewed this aspect of the program), the average amount of premiums per policy had increased at about the same rate as the premium rates (see p. 28), while the number of acres per policy had increased at a much slower rate.

Average Premiums and Acres per Policy

Crop year	Premiums: Amount	Premiums: Percent of increase over 1979	Acres: Number	Acres: Percent of increase over 1979
1979	$423.83	-	88.12	-
1980	578.15	36.4	98.42	11.7
1981	894.64	111.1	106.67	21.1

Because the compensation rates are based on a percent of premiums, FCIC's cost for commissions will increase at the same rate as premiums. The following table illustrates this by comparing the 1979 and 1982 commissions for insurance on 45 million acres (the approximate amount insured for crop year 1982) if the insurance had been sold by either master marketers or reinsured companies.

	Crop year 1979	Crop year 1982	Increase from 1979
Insured acres	45,000,000	45,000,000	-
Premium rate per acre	$4.73	$9.21	$4.48
Total premiums	$212,850,000	$414,450,000	$201,600,000
Compensation costs:			
Master marketers[a]	$32,992,000	$64,240,000	$31,248,000
Reinsured companies:			
Marketing[a]	52,148,000	101,540,000	49,392,000
Claims adjustment[b]	8,514,000	16,578,000	8,064,000

[a]Computed using the midpoint in the respective rate structure for crop year 1982.

[b]Computed on the basis of 4 percent of premiums.

Most of the increase in the average premium rate per acre since 1979 is due to the higher level of coverages and price elections offered and the fact that most producers have elected higher options. Even though the percent-of-premium method of compensation is generally consistent with the practice in private industry, the percentage rates established to compensate the private sector for the services provided need to be evaluated, considering the private sector's costs for selling the insurance and adjusting claims for losses.

RATES FOR COMPENSATING REINSURED COMPANIES FOR ADMINISTRATIVE AND OPERATING EXPENSES ARE BASED ON INAPPROPRIATE COST DATA

In establishing the compensation rates for the reinsured companies' sales and service activities, FCIC did not make a detailed cost study to determine what the rates should be to be equitable and cost-effective. Although we did not analyze cost data in detail to determine what the actual compensation rates should be, our review of FCIC's computations of the rates for the sales and service functions showed that FCIC had included certain costs that we believe should not have been included. In addition, FCIC made a mathematical error that overstated certain costs by 1 percent of premiums. As a result, the rates established could result in substantially higher payments to reinsured companies. But perhaps more importantly, the rates established are likely to be viewed by the companies as a floor in future rate negotiations with FCIC.

In accordance with the 1980 act, FCIC established a reinsurance program. On operating and administrative costs, the act states:

> "The Corporation shall also pay operating and administrative costs to insurers of policies on which the Corporation provides reinsurance to the same extent that such costs are covered by the Corporation on the Corporation's policies of insurance. . . ."

In establishing a cost base for rates to compensate companies for expenses other than those for claims adjustment activities, FCIC used overall 1979 cost data applicable to its regional offices; its headquarters elements in Washington, D.C., and Kansas City; and its National Service Office in Kansas City.

Our review showed that FCIC's rate for the reinsured companies' sales and service activities was about 3.7 percentage points, or about 14 percent, higher than justified. In reviewing the $3.6 million National Service Office costs that FCIC included in the base, for example, we identified about $790,000, or about 0.9 percent of premiums, that should have been excluded. About

$504,000 of this amount was identified as underwriting costs but actually pertained to the actuarial function, which FCIC still carries out. The other $286,000 related to claims adjustment activities for which reinsured companies are paid separately.

FCIC also included costs relating to claims adjustment activities in computing headquarters and regional office costs for the sales and service function. These represented about 0.6 percent and 1.6 percent of premiums, respectively. In addition, FCIC made a mathematical error that overstated the regional offices' costs by 1 percent of premiums. Conversely, FCIC understated total costs by about $400,000, or about 0.4 percent of premiums, because it did not include an amount for uncollectible premiums. We also noted a difference of 2.2 percentage points between the 13.1 percent that FCIC used for agent commissions in the computation and the 10.9 percent that FCIC actually paid for crop year 1981, but we did not include this in our estimate of potential excessive payments because the percentage FCIC used appeared to have been based on the best data available at the time FCIC made its computation.

If the compensation rate had been 3.7 percentage points lower, FCIC's payments to the reinsured companies for their sales and service activities would have been about $474,000 lower for crop year 1981; about $2.9 million lower for crop year 1982; and an estimated $12.6 million lower for crop year 1983.

In establishing the initial compensation rate, FCIC was limited to considering the costs that it would have incurred to sell and service the same policies. However, reinsured companies incur some costs that FCIC does not. According to the reinsured companies we visited, two such costs are trade association fees and premium tax. The companies could not identify the amount of costs relating to trade association fees. However, the companies are liable for the premium tax, amounting to about 2 percent of premiums, that is paid to the insurance commissions in the states where the companies do business.

FCIC's Reinsurance Coordinator told us that he believed the rates FCIC established were not excessive because reinsured companies had costs, such as the premium tax, that FCIC did not have. In addition, he said that the amount included in the cost base for departmental overhead was not sufficient. He said that he believed these factors would offset any overstated costs we identified.

We recognize that reinsured companies have costs that were not applicable to FCIC and that the general cost data FCIC used as a basis for establishing compensation rates may not have included all appropriate costs. However, we believe that the difference between the percent used for agent commissions (13.1) and the percent actually incurred for crop year 1981 (10.9) would more than offset the additional costs that the reinsured companies incur above FCIC's costs. Because a difference of only one or two percentage points in compensation rates could result in several million dollars in payments, we believe our analysis shows the need for FCIC to evaluate the rate structure. In our opinion, any rate structure established should be fully justified and supported by detailed cost data.

METHOD USED TO ESTABLISH COMPENSATION RATES FOR CLAIMS ADJUSTMENT ACTIVITIES IS QUESTIONABLE

The method FCIC used to establish the compensation rates for the claims adjustment activities by the reinsured companies could result in substantially higher costs to FCIC. Reimbursing the companies for fixed and variable costs on the basis of a percent of premiums plus a percent of indemnities is questionable because it bears no relationship to the actual costs incurred by the companies. In addition, as noted on pages 27 to 30, FCIC did not consider the effect that the expected increase in premium rates would have on the compensation rates.

FCIC based claims adjustment compensation rates on its direct claims adjustment costs as a percent of premiums and indemnities over a 4-year period. Direct claims adjustment costs included such items as salaries, travel, and telephone costs that were identified with specific claims adjustment activities. Such costs also included salaries and related expenses of personnel who supervised and trained the adjusters. Not included in the base were those overhead costs not identifiable with a specific claim, such as general supervision and meetings, recruiting claims adjusters, supplies, developing procedural materials, and progress reporting of claims adjustment activity.

The following table shows the data FCIC used in determining its claims adjustment costs as a percentage of premiums and indemnities.

Crop year	Premiums	Indemnities	Claims adjustment costs[a]	Claims adjustment costs as a percentage of Premiums	Claims adjustment costs as a percentage of Indemnities
	----------(000 omitted)----------				
1976	$ 90,800	$142,300	$ 5,510	6.1	3.9
1977	101,800	149,100	6,180	6.1	4.1
1978	93,600	47,300	6,080	6.5	12.8
1979	103,400	70,000	6,970	6.7	10.0
Total	$389,600	$408,700	$24,740		

[a]Fiscal year costs allocated 50 percent to previous crop year and 50 percent to current crop year.

FCIC determined that the simple averages of the percentages for the 4-year period were 6.3 percent of premiums and 7.7 percent of indemnities which, when combined, gave a simple average of 7 percent. The Reinsurance Coordinator stated in his analysis that the simple average was an appropriate measure because it avoided giving excessive weight to years with premiums or indemnities out of the ordinary. FCIC then decided to establish the compensation rate at 4 percent of premiums to cover fixed expenses (i.e., expenses unrelated to volume) and 3 percent of actual indemnities to cover variable expenses (i.e., expenses related to volume).

To assess the validity of the 4- and 3-percent rates, we applied these rates to the total premiums and indemnities for the 4-year period and found that the compensation to reinsured companies would have been about $27.8 million for the claims adjustment work. This amount is about $3.1 million more than the actual costs FCIC incurred for the period.

We also compared FCIC's claims adjustment costs for crop years 1980 and 1981 with the amounts that would have been paid to reinsured companies if they had sold the insurance and adjusted the losses. As shown below, the total claims adjustment payments would have been about $18.3 million more than the amount FCIC had actually incurred.

Crop year	Total Premiums	Total Indemnities	FCIC's actual claims adjustment costs	Compensation per established rates	Additional amount
	(millions)				
1980	$157.7	$356.4	$ 9.6	$17.0	$ 7.4
1981	367.2	404.0	15.9	26.8	10.9
Total	$524.9	$760.4	$25.5	$43.8	$18.3

The Reinsurance Coordinator acknowledged that FCIC did not know the reinsured companies' actual costs but believed it was better to establish a higher rate based on premiums to place more emphasis on marketing rather than on adjusting losses. The Coordinator said that FCIC could not reimburse companies for their actual claims adjustment costs because it did not have enough staff to audit the 35 reinsured companies. He added that the rates were established as percentages of premiums and indemnities because those figures were easily ascertainable.

Because FCIC's method of reimbursing reinsured companies bears no relationship to the actual costs for claims adjustment activities, it could result in substantially higher costs to the government. We believe FCIC needs to evaluate and adjust its reimbursement rates for the claims adjustment activities to assure that these rates are reasonable and equitable to the government.

CONCLUSIONS

In trying to move rapidly to private sector delivery of the expanded crop insurance program, FCIC undertook a series of compensation actions that collectively will cause FCIC's payments to the private sector to escalate as premiums increase. The various rate structures for paying sales and service commissions are based on premiums derived from an old program not comparable to the current program, and the application of such rates to the current program's increased premiums could result in providing the private sector with very high commissions.

The cost data FCIC used to develop rates to compensate the reinsured companies for expenses other than claims adjustment costs included costs applicable to actuarial and claims adjustment activities. Such costs should not have been included because (1) FCIC continues to carry out the actuarial function for those policies handled by reinsured companies and (2) a separate rate structure was established for claims adjustment activities in which the claims adjustment costs should have been included. In addition, errors in the development process resulted in overstating FCIC costs.

We recognize that the reinsured companies have certain costs, such as premium taxes paid to state insurance commissions, that FCIC did not incur. However, we believe these additional costs would be more than offset by the difference between actual agent commissions and the estimate of agent commissions that FCIC included in its cost base. On the basis of our analysis of FCIC's calculations, we believe that the rates established were about 14 percent too high. As a result, excessive payments may have amounted to about $474,000 for crop year 1981 and to as much as $2.9 million for crop year 1982. If the reinsured companies write as much insurance for the 1983 crop year as FCIC estimates, the excessive payments for that year could reach as much as $12.6 million.

The method FCIC used to establish compensation rates for reinsured companies' claims adjustment costs could result in substantially higher costs to FCIC. In our opinion, FCIC did not have a sound basis for establishing separate percentage rates to cover fixed and variable costs because it did not know the extent of the companies' costs to carry out the claims adjustment functions.

RECOMMENDATION TO THE SECRETARY OF AGRICULTURE

We recommend that the Secretary of Agriculture direct FCIC's Board of Directors and Manager to evaluate the rates established for compensating the private sector in relation to the current, and/or expected, premium base and the private sector's costs to provide such services. The rate structure should, if warranted, be adjusted to provide reasonable compensation to the private sector for its services and, at the same time, be cost-effective to the federal government.

AGENCY COMMENTS AND OUR EVALUATION

According to USDA (see app. III), compensation rates for the private sector were based on the cost of FCIC's providing comparable functions and services at the time the legislation was passed. USDA added that the compensation rates were based on limited data and that it was extremely difficult to use the FCIC cost data for this purpose because they had been previously used only for internal management.

USDA said that it believes it is inappropriate to form any conclusions pertaining to rate structures until a thorough review is conducted. It agreed with our recommendation, however, to evaluate the rates. USDA said that the private sector's expanded involvement in the past 3 years establishes a body of data on which updated compensation rates can be based and, therefore, it was seeking experts from outside the government to evaluate the compensation rates to the private insurance sector for use in future agreements.

We believe our review has demonstrated that the compensation rates were set too high. (See pp. 30 to 34.) We view USDA's willingness to evaluate the rates as a positive step.

CHAPTER 5

THE REINSURANCE PROGRAM MAY BE TOO COSTLY AND NEEDS TO BE EVALUATED

FCIC, which established a limited reinsurance program for 1981, has substantially expanded the program without determining whether reinsurance is an efficient and cost-effective way to deliver crop insurance. Annual revisions to the standard reinsurance agreement have increased the reinsured companies' potential for underwriting gains and limited the amount of underwriting losses they could incur. While the agreements have been revised to try to get more companies involved and to encourage them to write insurance on all crops nationwide, FCIC made these revisions, in our opinion, without adequate management information to evaluate the effectiveness of this method of delivering insurance or to determine if the agreements could be tailored to each individual company.

The revised gain and loss formula for 1983 provides that participating insurance companies begin to share in losses only when indemnities exceed 128 percent of premiums. For 1981 and 1982, loss sharing started when indemnities exceeded 100 percent of premiums. Because the formula for distributing gains and losses is tilted in the reinsured companies' favor, the distribution of gains to reinsured companies from premium surplus could substantially affect FCIC's ability to build a reasonable reserve for unforeseen losses as the act requires.

FCIC established the gain and loss formula applicable to all companies on a nationwide loss ratio without considering each company's geographical area of operation and the effect that a substantial increase in premium rates would have on the expected loss ratio. We believe this could result in providing some companies a greater potential for underwriting gains.

We believe that the Secretary of Agriculture should limit further expansion of the reinsurance program until sound reinsurance principles can be incorporated to provide a program that is cost-effective for both the government and insurance companies. In addition, we believe that FCIC should tailor the reinsurance agreements to each company based on the company's area of operation and the loss experience for that area.

GAIN AND LOSS FORMULA IS COSTLY AND COULD AFFECT BUILDING A RESERVE

The reinsurance program's gain and loss formula, initially developed to distribute the gains and losses on insurance written by reinsured companies, has been revised annually to encourage greater participation by insurance companies. These revisions allow more potential gain while limiting the amount of loss that a reinsured company could incur. Because the annual and 5-year distribution of gains is from premium surplus, FCIC's ability to accumulate a reasonable reserve for unforeseen losses is diminished as premium surpluses are cut back or eliminated.

Reinsurance program

The 1980 act authorizes, empowers, and directs FCIC to provide reinsurance, to the maximum extent practicable, to insurers that, under plans acceptable to FCIC, insure producers of any agricultural commodity. The reinsurance is to be based on terms and conditions determined by FCIC's Board and on sound insurance principles. The insurers can include private insurance companies or pools of such companies; reinsurers of such companies; or state or local governmental entities, including any political subdivisions thereof. According to the act, a test program of such reinsurance was to be made available, to the maximum extent possible, to begin not later than with the 1982 crops.

Under the reinsurance program that FCIC initiated for crop year 1981, established insurance companies enter into a financial arrangement with FCIC to sell, service, and adjust the losses on the policies the companies sell. The insurance coverages and rates the companies offer are developed by FCIC's actuarial division and provided to the companies. The companies, acting as "direct" insurers for policies issued in their names, are able to obtain reinsurance coverage from FCIC as protection against most of the risk that could result from underwriting losses incurred in selling crop insurance. FCIC is the reinsurer and is liable for the major share of underwriting losses if the experience is unfavorable and shares in the underwriting gains if the experience is favorable.

The Standard Reinsurance Agreement does not require the reinsured companies to write the insurance for any particular crop or in any particular area, county, or state. The companies decide these matters for themselves. In addition, the reinsured companies can further limit their amount of risk in a state and/or a county. Each company can establish a dollar limit by county and/or state in which it shares in the total gain or loss; insurance above the limit would be transferred to FCIC.

The Standard Reinsurance Agreement stipulates a reinsured company's percentage share in underwriting gains and losses. For crop year 1981, the maximum amounts of a company's gain and loss were set at 5 percent and 8-1/2 percent, respectively, of premiums. For crop year 1982, these percentages were each set at 8 percent. For both years, the reinsured company shared in no gain or loss when the loss ratio was 1.00 (premiums and indemnities were equal). For crop year 1983, the gain and loss percentages were set at a maximum of 11-1/3 percent; in addition, companies would not share in underwriting losses until the loss ratio exceeded 1.28-1/3.

Because a company's share of loss is computed as a percent of premiums rather than as a percent of total loss, its percent of loss is smaller as the loss becomes greater. For example, if the loss ratio under the 1983 agreement reaches 540 percent (that is, $5.40 is paid out in indemnities for every $1.00 premium), the company's share of loss is limited to 11-1/3 percent of the $1.00 premium, which is 2.1 percent of the $5.40 loss. The gain and loss percentages at various loss ratios for crop years 1981-83 are shown below.

Loss ratio	Gain and (loss) distribution per agreement for crop year 1981		1982		1983	
	Company	FCIC	Company	FCIC	Company	FCIC
.00	5	95	8	92	11-1/3	88-2/3
.40	5	55	8	52	11-1/3	48-2/3
.75	5	20	8	17	11-1/3	13-2/3
.90	5	5	3-1/3	6-2/3	6-2/3	3-1/3
.95	5	0	1-2/3	3-1/3	5	0
1.00	0	0	0	0	4-1/4	(4-1/4)
1.10	(5-1/4)	(4-3/4)	(1)	(9)	2-3/4	(12-3/4)
1.28-1/3	(6-1/5)[a]	(22-1/5)[a]	(2-5/6)	(25-1/2)	0	(28-1/3)
1.60	(7-1/2)	(52-1/2)	(6)	(54)	(4)	(56)
2.00	(8-1/2)	(91-1/2)	(8)	(92)	(8)	(92)
3.00	(8-1/2)	(191-1/2)	(8)	(192)	(9)	(191)
5.33-1/3	(8-1/2)	(424-4/5)	(8)	(425-1/3)	(11-1/3)	(422)

[a]Does not add because of rounding to achieve common fraction.

The reinsurance agreement also provides for the distribution of any cumulative net gains that each company experiences over a 5-year period. If a positive balance exists after 5 years, the company receives an additional 20 percent of the balance, up to 5 percent of premiums. If a negative balance exists, the company does not share in any additional loss. In either case, a new 5-year period begins.

Basis for gain and loss formula

In designing the gain and loss formula for the 1981 Standard Reinsurance Agreement, FCIC analyzed premium and indemnity information for 10 states ranking among the top 11 states in federal crop insurance premium volume for 1979. (The seventh-ranking state in premium volume was not included in the analysis because it was not considered to be in a hail area like the other 10 states.) In its analysis, FCIC stated that these 10 states were the same ones that had the largest premium volume for hail insurance written by private insurance companies. FCIC estimated that these 10 states would account for most of the reinsured business for the next few years. Also, FCIC assumed that the reinsured companies would have the same experience that FCIC had in these 10 states over a 10-year period. Using the 10 states' combined premium and indemnity data for a 10-year period (1970-79), FCIC arrived at a loss ratio of 0.90, which was the basis it used in establishing the gain and loss formula.

According to FCIC's June 10, 1981, draft impact analysis, the terms in the 1981 reinsurance agreement presented a problem to a number of private insurance companies. According to FCIC, the 1981 agreement allowed a company to incur a maximum underwriting loss of 8-1/2 percent of premiums for any crop year; the maximum allowable retention in underwriting gain would be 5 percent for any crop year, with a potential to receive additional underwriting gains at the end of a 5-year period. Analyses indicated that, on the average, a company could expect a net underwriting gain of about 4 to 6 percent of premiums over a 5-year period under projected loss conditions with about two thirds of the underwriting gain being paid to the company at the end of the 5-year period. According to FCIC, the disparity between potential underwriting gains and losses for a participating company in any given crop year made a number of insurance companies hesitant or unwilling to participate.

The terms of the 1982 agreement made it possible for a company to gain or lose up to 8 percent of premiums for any crop year. In addition, the company could receive up to 5 percent of premiums if it experienced a net underwriting gain over the specified 5-year period. The net effect of the changes from the 1981 agreement was to allow a company the potential to receive greater underwriting gains in any given year, to slightly reduce the percentage of potential underwriting losses, and to substantially reduce the expected distribution of net underwriting gains at the end of each 5-year period. Under projected loss conditions, a company could still expect to receive underwriting gains averaging 4 to 6 percent of premiums over the 5-year period; however, about two thirds of the gains would likely be received in annual settlements and one third at the end of the 5-year period.

For crop year 1983, the gain and loss formula was revised again. But this time FCIC used its nationwide loss ratio of 1.10 for crop years 1948-80 in arriving at the formula. The Director of Kansas City Operations told us that the reasons for revising the formula were to attract more insurance companies to sell the insurance and to encourage companies already selling the insurance to expand their business into other areas, especially potential high-loss areas. He said that to accomplish these objectives, it was necessary to increase the potential for profit and also to protect the companies from incurring too great a loss.

Reinsurance program expanded without adequate evaluation

FCIC established a limited reinsurance program for crop year 1981. However, before enough data were available to adequately evaluate the program's efficiency and effectiveness or even the 1981 limited program's results, FCIC revised the gain and loss formula and expanded the program. Again, before the 1982 program's results were available for evaluation purposes, FCIC revised the formula for 1983. This revision was intended to attract more companies to the program and expand the program further. This expansion is in accordance with FCIC's goal of placing most of the marketing emphasis on the reinsurance program.

In implementing the 1980 act, FCIC set a goal to substantially increase the delivery of the insurance program through the reinsurance concept. FCIC's initial goal was to have reinsured companies deliver about 60 percent of the sales. In October 1981, the Board officially adopted an expansion philosophy to have the vast majority of FCIC insurance delivered through the private insurance sector with major emphasis on the reinsurance concept.

Annual revisions increase the reinsured companies' share of gains

In crop year 1981, 17 reinsured companies sold insurance with premiums of about $12.8 million and paid producers about $8.7 million in indemnities for an overall loss ratio of about 0.68. Of the 17 companies, 12 reported gross gains and 5 reported gross losses for a net gain of about $4.1 million. For this business, the reinsured companies received $332,000 as their annual share of the net gain. (In addition, the companies could receive up to about $500,000 more from the 1981 gain at the end of the 5-year period depending on the gain/loss experience for the remaining 4 years.)

Applying the gain and loss formulas of the 1981 and 1983 agreements to the actual results of the reinsured companies' business in crop year 1981 shows that the 12 companies' share of gains would have increased from about $491,000 (using the 1981 formula) to $1,113,000 (using the 1983 formula) and the 5 companies' share of losses would have decreased from about $159,000 (using the 1981 formula) to only $11,000 (using the 1983 formula). The reinsured companies' net gain per the 1981 agreement was about $332,000. Applying the 1983 formula to the 1981 figures would increase the 1981 gain to about $1,102,000, or more than three times as much, as the following table shows.

Agreement	Distribution of gains: Total gains	FCIC share	Companies' share	Distribution of losses: Total losses	FCIC share	Companies' share	Net gain
	(000 omitted)						
1981	$4,594	$4,103	$ 491	$451	$292	$159	$ 332
1982	4,594	3,808	786	451	417	34	752
1983	4,594	3,481	1,113	537[a]	526[a]	11	1,102

[a]Total gross losses and FCIC's share of losses are more than actual because the companies receive a gain up to a 1.28-1/3 loss ratio under the 1983 agreement.

Impact on building a reasonable reserve

Because the premium rate charged producers for insurance protection does not include a factor for expected distribution of gains to reinsured companies, the use of premium surplus for this purpose will affect FCIC's ability to accumulate a reasonable reserve for unforeseen losses, as the act provides. It could be argued that the amount of gain paid to reinsured companies is for them to build a reserve; however, once the annual distribution is made, FCIC has no further control over these funds. The Standard Reinsurance Agreement does not include any provision requiring that these funds or a portion of them be set aside for a reserve. Because the reinsured companies share on the gain side at a much faster rate than they share in losses and the fact that they can receive a gain (up to a 1.28-1/3 loss ratio) even though experience is unfavorable, FCIC's ability to build a reserve is diminished.

In accordance with legislative requirements, the premium rate charged producers for insurance coverage is to be based on expected indemnities (payments to producers for losses) and a factor to establish a reasonable reserve for unforeseen losses. Unlike administrative costs, which are to be paid from appropriated funds, the distribution of any gains is made from premium surplus or from FCIC capital stock sales if there is no surplus.

We believe that if FCIC is ever to build a reasonable reserve for unforeseen losses as the act requires, either the basis for establishing premium rates will have to include a factor for estimated gains to be distributed to reinsured companies or such distribution of gains will have to be paid out of appropriated funds.

REINSURANCE PROGRAM'S TOTAL COSTS

Our analyses of the reinsurance program's costs show that the 1981 program will cost from 35.6 to 39.4 percent of premiums. This cost is based on the terms of the 1981 agreement. If the 1983 agreement had been applicable to the 1981 business, the cost would have increased about 6 percent. If the 1983 reinsurance business has a loss ratio of 0.90 (which is used to set premium rates), FCIC's cost could amount to about 38.5 percent of premiums.

As the following table shows, the companies as a group received 35.6 percent of premiums for crop year 1981. They also have the potential of receiving an additional 3.8 percent at the end of the 5-year period for a total of 39.4 percent. If the 1983 reinsurance agreement had been applicable to the 1981 business, these percentages would have increased to about 41.6 and 45.3, respectively.

	Percent of premiums	
Compensation items	Per 1981 agreement	Per 1983 agreement
Administrative expenses[a]	27.0	27.0
Claims adjustment expenses[a]	6.0	6.0
Share of annual gain	2.6	8.6
Total	35.6	41.6
Potential share	3.8	3.7
Total	39.4	45.3

[a]These costs are paid out of appropriated funds.

The amount of compensation reinsured companies can receive will vary depending on whether the premium was from a new or carryover policy, the amount of actual indemnities paid, and the company's actual loss ratio which affects its share of the gain or loss. Because of these variables, we computed the percentage of a premium dollar that a reinsured company could receive at different loss ratios based on the 1983 agreement. For this comparison, we used the midpoint in the rates applicable to compensation for administrative expenses. The use of the midpoint assumes that the premiums from new policies would equal those from carryover policies. FCIC used this same assumption in establishing compensation rates for administrative expenses.

Our analysis, as set out in the following table, shows that at various loss ratios from 0.75 to 5.333, the percent of annual compensation on a premium dollar could vary from about 26.5 to 42.1, depending on the loss ratio.

Compensation item	Percent of premium dollar at a loss ratio of 0.75	0.90	1.00	1.25	2.00	5.333
Administrative and operating expenses	24.50	24.50	24.50	24.50	24.50	24.50
Claims adjustment expenses	6.25	6.70	7.00	7.75	10.00	20.00
Gain/loss distribution:						
Annual gain	11.33	6.67	4.25	.50	-	-
Annual loss	-	-	-	-	(8.00)	(11.33)
Total	42.08	37.87	35.75	32.75	26.50	33.17
5-year gain	2.73	.67	-	-	-	-
Total	44.81	38.54	35.75	32.75	26.50	33.17

As the table indicates, the amount of compensation per premium dollar would vary with the loss ratio. Therefore, if the reinsured companies write as much business as estimated by FCIC for crop years 1983 and 1984 and the loss ratio falls between 0.75 and 2.00, the total compensation to reinsured companies could amount to as much as about $179 million for crop year 1984. (See table below.) If the targeted loss ratio (0.90) used by FCIC in setting premium rates should be achieved, the payments to reinsured companies for crop year 1984 could amount to about $161 million.

Crop year	Estimated premiums	Range of compensation: Low (2.00 LR[a])	Target (0.90 LR)	High (0.75 LR)
	----------(000 omitted)----------			
1983	$340,000	$ 90,100	$128,758	$143,072
1984	425,000	112,625	160,948	178,840

[a]LR: Loss ratio.

The figures represent only the annual compensation to reinsured companies based on the loss ratios shown. If the balance in a company's account at the end of a 5-year period is positive, the company could get a further distribution of 20 percent of the balance, up to 5 percent of book premiums. In addition, the cost for delivery of the insurance through reinsured companies does not include other FCIC costs, such as its indirect costs applicable to this business, the premium subsidy, and indemnities paid to producers.

USE OF A STANDARD GAIN AND LOSS FORMULA IS QUESTIONABLE

FCIC established one standard gain and loss formula for all reinsured companies based on its nationwide loss ratio without considering the effect of each company's geographical area of operation which could have a different loss ratio. In addition, FCIC developed the 1983 gain and loss formula without considering the effect that the adjustments to the premium rates for crop year 1983 would have on the nationwide loss ratio. We believe this results in providing some companies a greater potential for underwriting gains.

Comparison of loss ratio used with weighted loss ratio

Participating companies can select the crops and areas of the country in which they sell insurance; thus they can limit their risk by county and by state. We question the use of a nationwide loss ratio in developing the gain and loss formula, when many companies' operations are not nationwide.

FCIC establishes a control--called a book limit--on the amount of premiums for each reinsured company. Each company submits a plan of operations showing the states in which it plans to sell insurance and the estimated amount of premiums it expects in each state. Using the book limits established by state for three reinsured companies we visited, we compared the loss ratio FCIC used in developing the 1983 gain and loss formula (1.10) with the actual loss ratios for those specific states in which these companies planned to operate and weighted the loss ratios by the companies' planned book limit for each state. As the following table shows, this comparison shows that FCIC's use of a nationwide loss ratio for all companies is not representative of the experienced loss ratio for the areas in which these companies planned to operate. (See app. II for actual computations.)

Company	Nationwide loss ratio 1948-80	Weighted loss ratio 1948-80
A	1.10	0.88
B	1.10	0.96
C	1.10	0.98

As indicated above, the use of a 1.10 loss ratio in developing the gain and loss formula for the 1983 agreement provided these companies an additional margin against any potential loss.

1983 adjustments to premium rates were not considered

As stated on page 15, FCIC adjusted the premium rates for crop year 1983 insurance offers to correct "suspected" inaccuracies in the rates. FCIC estimated that these adjustments would increase the premiums nationwide by 12 to 14 percent.

Although FCIC's nationwide loss ratio for crop years 1948-80 was 1.10, FCIC did not consider the 1983 premium adjustments in developing the 1983 gain and loss formula. If premiums increased by 12 to 14 percent as estimated by FCIC but losses remained the same, the effect would be to reduce the loss ratio by about 9 percent. Accordingly, even if the use of a nationwide loss ratio was appropriate, a loss ratio of 1.00 would appear more realistic than the 1.10 used.

CONCLUSIONS

The 1980 act directs FCIC to provide reinsurance to the maximum extent practicable and requires that a reinsurance program be established on a test basis. FCIC established a limited program in 1981. However, before enough management information was available to evaluate the efficiency and cost-effectiveness of the reinsurance concept, FCIC expanded the program significantly. The initial formula for distributing gains and losses has been revised each year, providing the companies more potential for gain while reducing their potential for losses. Although these changes may have been deemed necessary to achieve greater participation by insurance companies, they have resulted in the formula's being tilted in the reinsured companies' favor. In addition, the use of the gain and loss formula as a means to increase participation may not be cost-effective and could adversely affect FCIC's ability to build a reasonable reserve for unforeseen losses.

The 1983 gain and loss formula virtually guarantees the participating companies a gain even though the loss experience may be unfavorable. Establishing a gain and loss formula applicable to all companies on a nationwide loss ratio without considering the loss ratios of the geographical areas or states where each company plans to write insurance could provide some companies even more potential for gain. In addition, establishing the 1983 formula without considering the effect that the estimated increase of 12 to 14 percent in premium rates for crop year 1983 would have on the nationwide loss ratio makes the 1983 gain and loss formula even more favorable to the reinsured companies.

If all payments to reinsured companies are considered, the cost to deliver the insurance through this concept could range from 26.5 to 44.8 percent of each premium dollar. If the target loss ratio of 0.90 is achieved for the 1983 crop year, the total payments to reinsured companies would be about 38.5 percent of each dollar of premium.

RECOMMENDATIONS TO THE SECRETARY OF AGRICULTURE

We recommend that the Secretary of Agriculture direct FCIC's Board of Directors and the Manager to

--moderate further expansion of the reinsurance program until the operation of the current program can be evaluated to assure that it is cost-effective for both the government and the insurance companies and

--tailor the reinsurance agreements to each company's area of operation and base the gain and loss formula on the loss experience for the geographic area in which the company operates.

AGENCY COMMENTS

USDA said (see app. III) that as we had indicated, a reinsured company does not currently suffer an underwriting loss until a loss ratio of about 128 percent is achieved. Also, it agreed that the opportunity for gain may be better for some companies than for others based on the geographical areas in which they sell crop insurance. It said, however, that one of its objectives is to operate as a sound reinsurer and that, as FCIC's actuarial system is improved, the risk-sharing terms could and would be modified to retain equity and allow for building an adequate reserve.

On our conclusion that the 1983 gain and loss formula virtually guarantees participating companies a gain, USDA said that over half the companies reinsured in 1983 would bear an underwriting loss. In clarifying this statement, FCIC's Deputy Manager told us on February 1, 1984, that FCIC's current records indicated that over half the companies reinsured in 1983 were bearing an underwriting loss due to disastrous weather conditions during the 1983 growing season and that a contributing factor to reduced business and possible increase in underwriting loss was the "Payment-In-Kind" program for 1983. He added, however, that FCIC did not have evidence to support or reject our conclusion. He said that further experience with a larger volume in all-risk coverage would provide the answer to this question.

USDA also said that the reinsured companies were rapidly expanding their crop insurance business and that, as their business stabilized, particularly the distribution of their business across crops and geographical areas, the reinsurance agreement's terms could be fine-tuned to equitably reinsure the risks involved. It added that it was developing the specifications for an objective nongovernmental body to review the agreement and recommend improvements.

CHAPTER 6

ACTIONS ARE BEING TAKEN TO IMPROVE QUALITY CONTROL

PROGRAMS AND AUDITS OF REINSURED COMPANIES

An efficient insurance operation needs trained sales agents, qualified claims adjusters, and quality control programs to assure properly administered sales, services, and claim activities. As stated earlier, in 1981 FCIC shifted the major portion of its delivery system to the private sector--individual agents, master marketers, and reinsured companies. With the increase in private sector involvement, FCIC initially experienced a substantial increase in the number of errors on insurance documents (i.e., insurance contracts, acreage reports, and loss claims).

FCIC has initiated a number of actions, such as additional training, that should improve the insurance paperwork submitted by independent agents and master marketers. Furthermore, it has taken several steps to develop a comprehensive quality control program and a plan for an independent audit of the reinsured companies. These efforts are needed to provide assurance that insurance written and claims paid meet the crop insurance program's requirements and that the insurance experience is correctly reported for actuarial purposes.

IMPROVEMENTS IN THE QUALITY OF INSURANCE DOCUMENTS CAN BE EXPECTED

Because of a high document error rate in crop year 1981, FCIC took a number of actions to improve the accuracy of insurance documents submitted by its independent agents and master marketers. On the basis of these actions, we believe improvements in the quality of the insurance documents can be expected.

In 1981, FCIC shifted a major portion of its delivery system to the private sector. With this shift, the number of agents increased, but FCIC experienced high error rates in processing insurance documents apparently because of the agents' unfamiliarity with the program. In 1981, between 45 and 65 percent of the insurance documents submitted by independent agents and master marketers were found to have errors. This prompted OIG's recommendation in its audit report dated June 18, 1981, that FCIC implement an error-tracking system.

FCIC recognized that the high document error rate in 1981 created numerous problems in the timeliness of billing premiums, computing agent compensation, and processing claims. To reduce the error rates and improve the overall quality of document processing, FCIC had taken or was taking the following actions as of the time of our fieldwork:

1. To reduce the number of records rejected because the acreage reports were not processed, a control was initiated to verify that all acreage reports had been filed and processed.

2. To reduce errors resulting from inexperienced agents who had not received enough training, FCIC:

   --Had established a new quality control program over documents filed by independent agents and master marketers. The controls call for differing review criteria at various field levels.

   --Was requiring master marketers to have quality controls for crop year 1983 that would enable FCIC to process upon receipt and without error or omission 80 percent of sales documents and acreage reports.

   --Was requiring that agents and adjusters be certified by FCIC upon completion of required training and take tests showing an acceptable level of proficiency for every crop they will sell or adjust.

3. To obtain quality work, FCIC was

   --changing the method of compensating claims adjusters to remove the incentive to rush through claims causing the quality of adjustments to suffer,

   --developing an error-tracking system, and

   --establishing a method of reporting that identifies error rates by region to facilitate targeted management action.

In our opinion, these actions should improve the quality of the insurance paperwork submitted by independent agents and master marketers.

STATUS OF THE QUALITY CONTROL PROGRAM FOR REINSURED COMPANIES

As of October 1983, FCIC had not fully developed a comprehensive quality control program for the insurance written and claims settled by the reinsured companies. The Acting Chief of FCIC's Program Administration Branch told us that staff diversions to meet other priorities had precluded FCIC from fully implementing its planned quality control program for these activities. According to the Acting Chief, FCIC instead had relied principally on (1) the reinsured companies' quality control and internal audit programs and (2) reviews made by state regulatory agencies. Also, FCIC must depend on the effectiveness of the Crop Hail Insurance Actuarial Association's various controls and error checks in processing the companies' insurance paperwork. CHIAA is a service bureau that handles processing and reporting for reinsured companies.

The documents CHIAA processes for the reinsured companies contain the needed insurance records for the FCIC data files. FCIC experienced a 74-percent error rate on its initial attempt to match, by computer, CHIAA's data for crop year 1981 business with the data in the FCIC master files. The errors were due to several factors such as CHIAA's not following the specifications FCIC provided for computer processing, FCIC's not providing complete instructions, and the reinsured companies' submitting invalid data to CHIAA.

The Chief of FCIC's Reinsurance Branch told us that computer edit problems would not occur for crop year 1982 because

--FCIC's Data Automation Division was providing continuing technical assistance to CHIAA to promote error-free data and

--comprehensive computer edit programs that CHIAA had completed showed a 6-percent policy error rate when first run for crop year 1982 business in November 1982.

In an audit report on the reinsurance program dated January 3, 1983, USDA's Office of Inspector General noted that the reinsured companies were not required to determine the propriety of source documents. This allowed double coverages since policyholders could select more than one price election or coverage level for each crop or opt for two or more reinsured company policies on the same crop. The OIG's audit disclosed that FCIC had not stressed the importance of a thorough review of monthly accounting reports as a tool to identify and correct errors and the need for timely reporting of activity to FCIC. In addition, OIG found that the reinsured companies incorrectly determined acreage, production, and/or other data, causing under- and overpayments in premiums, commissions, and claims. FCIC agreed with OIG's recommendations to work with the reinsured companies to establish internal controls to assure (1) the reliability of computerized source data used to determine administrative expense reimbursement and (2) the timely correction of errors in the source data.

STATUS OF THE AUDIT PLAN FOR REINSURED COMPANIES

Although an overall audit plan had not been developed as of October 1983, steps had been taken to develop such a plan. FCIC's Comptroller, who is responsible for developing an appropriate plan for an independent audit of the reinsured companies and CHIAA's operations, acknowledged that FCIC needed better controls to account for business the reinsured companies report and data CHIAA accumulates and submits to FCIC for financial settlement. However, he stated that improvements were being made and provided the following examples of action FCIC had taken or was taking toward developing an overall audit plan:

--The vulnerability assessment of FCIC's internal control systems required by Office of Management and Budget Circular A-123 was completed in December 1982.

--Financial standards for reinsured companies were being developed and were expected to be issued in 1983.

--An internal auditing function, independent of the Comptroller's Office, to make both internal and external financial and operational audits, was being studied.

--A test audit was performed at one reinsured company in September 1983 to develop the specific work program to be followed in making an audit for the annual settlements.

CONCLUSIONS

FCIC's efforts to improve the quality control over insurance documents submitted by independent agents and master marketers should produce positive results. Also, FCIC is developing a comprehensive quality control program for its reinsured companies. This should enable FCIC to satisfy itself that all insurance written and claims paid by these companies meet crop insurance program requirements and that the insurance experience for each policyholder is correctly reported for actuarial purposes.

Further, actions have been taken to develop an overall plan for an independent audit of the compensation claimed by the reinsured companies. These efforts should provide FCIC with better assurance that the financial data supporting the reinsured companies' claims for compensation are proper. Because of the actions taken or planned by FCIC to develop a quality control program and a plan for an independent audit of the reinsured companies, we have no recommendations on these matters at this time.

REFERENCES TO PAST STUDIES

ON FCIC's ACTUARIAL PROCEDURES

1. Federal Crop Insurance Corporation Task Force. A Study of the Federal Crop Insurance Corporation, November 4, 1970. Prepared for the Secretary of Agriculture and FCIC Board of Directors.

2. U.S. General Accounting Office. Report to the Congress, FOD-77-7, The Federal Crop Insurance Program Can Be Made More Effective, December 13, 1977.

3. The Actuarial Research Corporation. An Analysis of the Present and Proposed Federal Crop Insurance Programs, March 1978. Prepared for Federal Crop Insurance Corporation, Department of Agriculture (Contract No. 12-27-111-280).

4. Federal Crop Insurance Corporation Working Group on Individual Classification. Final Option Paper on Individual Classification, 1979.

5. Ernst and Whinney. Review of Ratemaking Practices, June 1982. Prepared for Federal Crop Insurance Corporation, Department of Agriculture.

COMPUTATION OF WEIGHTED LOSS RATIO

Company	State	Company's 1982 book limit	FCIC's loss ratio 1948-80	Weighted Amount	Weighted Ratio
		(000 omitted)		(000 omitted)	
A	Colorado	$ 50	1.30	$ 65	
	Iowa	250	.99	248	
	Kansas	1,000	.77	770	
	Nebraska	800	.85	680	
	Oklahoma	200	.95	190	
	South Dakota	250	1.17	293	
	Wyoming	50	.87	44	
	Total	$2,600		$2,290	0.88
B	Iowa	$ 600	.99	$ 594	
	Kansas	400	.77	308	
	Minnesota	300	1.01	303	
	Nebraska	1,250	.85	1,063	
	North Dakota	500	1.19	595	
	South Dakota	350	1.17	410	
	Total	$3,400		$3,273	0.96
C	Georgia	$ 300	1.43	$ 429	
	Illinois	200	.65	130	
	Iowa	1,000	.99	990	
	Kansas	200	.77	154	
	Michigan	25	.97	24	
	Minnesota	500	1.01	505	
	Montana	400	.90	360	
	Nebraska	1,000	.85	850	
	North Carolina	300	1.13	339	
	Oklahoma	50	.95	48	
	Virginia	250	1.29	323	
	Wyoming	50	.87	44	
	Indiana	100	.62	62	
	Kentucky	200	.81	162	
	North Dakota	375	1.19	446	
	Ohio	50	.70	35	
	Total	$5,000		$4,901	0.98

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

DEC 30 1983

Mr. Brian P. Crowley
Senior Associate Director
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Crowley:

We welcome the opportunity to comment on the draft report "More Attention Needed in Key Areas of the Expanded Crop Insurance Program."

Your comprehensive review recognizes the key issues that faced the Department of Agriculture and management for the Federal Crop Insurance Corporation (FCIC) as we implemented the provisions of the Federal Crop Insurance Act of 1980. The 1980 Crop Insurance Act was passed to replace federal disaster assistance to farmers. This legislation gave us the opportunity to correct the deficiencies in these assistance programs which were overlapping, inefficient and inadequate. Crop insurance was correctly recognized as the appropriate tool to assist farmers in their risk management efforts.

Adapting the crop insurance program to its substantially increased role was not an easy matter. Prior to 1981, as your report indicates, crop insurance was not generally available even on the major crops. Our actuarial capability was limited to periodic updating of a limited number of programs and a very minor expansion effort with almost no research to improve methods. In addition, the delivery system was capable of servicing only a limited number of farmers and could not achieve broad market penetration.

The Department of Agriculture recognized these problem areas. FCIC did, however, comply with the intent of the 1980 Act by expanding coverage to new crops and increasing the amount of coverage on crops we had insured previous to the passage of the Act. Even though it was known that certain trade-offs would have to be made in order to facilitate rapid expansion, the resulting product offered a better opportunity to efficiently serve the farmers' needs than any other alternative. Your report correctly addresses many of the trade-offs that had to be made in order to facilitate expansion of the crop insurance program. The draft report also correctly concludes that management attention is now needed in several key areas as a second phase in achieving a sound and well-managed insurance program.

FCIC has taken the necessary steps to modernize its actuarial system. An actuarial consulting firm has reviewed the FCIC rating system. This review is now complete and will provide a basis for instituting modern actuarial systems and to make the review of the premium structure more current and reflective of actuarial experience. FCIC will therefore implement an improved rate making system and develop an actuarial research function so that our ability to correctly establish insurance offers will be in tune with current and accepted actuarial practices and theories. Since our expansion has now slowed, the actuarial modernization is the number one priority for FCIC in the next few years.

The operating experience of 1980-82 has been incorporated into the Corporation's computer system. Initial reports have been received by the Actuarial Division and this information will be incorporated into future rate revisions. This, in conjunction with the development of the modernized rate making system, should provide an improved actuarial basis for premiums.

The expansion of the Individual Yield Coverage (IYC) program will allow for more crop coverages to be based on the producers' actual crop yield data. The program to use actual production history on cotton and rice, the expansion of this program into other crops planned for FY 84, and the improved optional IYC program should speed this process.

The 1980 Crop Insurance Act correctly recognized that an insurance program can succeed only if the private insurance sector is broadly involved. Private insurance companies and agents have the proven ability to offer timely and accurate service to farmers and to achieve broad market penetration. The Department of Agriculture faced the task of finding appropriate contractual arrangements to involve these private insurance organizations.

Compensation rates to these organizations were based on the cost of FCIC providing comparable functions and services at the time the legislation was passed. However, it was extremely difficult to use the FCIC cost data for this purpose since they had been previously used only for internal management. Compensation rates were established based on the limited data available. Your review of that data concludes that the rates established were too high. We agree that it is appropriate to review the reimbursement rates at this time, but feel it inappropriate to form any conclusions pertaining to rate structures until a thorough review is conducted. The expanded involvement of the private sector in the past three years makes available a body of data upon which updated compensation rates can be based. Therefore, experts from outside the government are currently being sought to evaluate the compensation rates to the private insurance sector for use in future agreements.

One of our objectives is to operate as a sound reinsurer. Our reinsurance treaties reflect the current status of the crop insurance business and the deficiencies previously discussed. As you indicate, a private company does not currently suffer an underwriting loss until a loss ratio of approximately 128 percent is achieved. The opportunity for gain may be better for some companies than for others based on the geographical areas in which they write. As discussed earlier, as our actuarial system is improved, the risk sharing terms can and will be modified to retain equity and allow for the building of an adequate reserve. Over half of the companies reinsured in 1983 will bear an underwriting loss even with these terms.

Brian P. Crowley 3

[GAO COMMENT: On February 1, 1984, we met with FCIC's Deputy Manager to obtain clarification of the last sentence in the above paragraph. The Deputy Manager provided the following clarification:

> "Your report states that 'a private company is virtually guaranteed an annual gain because the loss would have to exceed 128 percent of premiums before the companies would begin to share in any loss.' We agree that companies do not share in the underwriting loss until the loss ratio of approximately 128 percent is achieved. We do not have evidence to support or reject your statement about 'virtually guaranteeing annual gains' by reinsurance companies. Further experience with a larger volume in all-risk coverage will provide the answer to this question. Our current records indicate that over half of the companies reinsured in 1983 are bearing an underwriting loss due to disastrous weather conditions during the 1983 growing season. A contributing factor to reduced business and possible increase in underwriting loss was the 'Payment-In-Kind' program for 1983."]

The private companies reinsured by FCIC are rapidly expanding their book of business. As their business stabilizes, particularly the distribution of their business across crops and geographic areas, agreement terms can be fine-tuned to equitably reinsure the risks involved. We are currently developing the specifications for an objective non-governmental body to review the agreement and recommend improvements.

The Department of Agriculture is convinced that tremendous progress has been made in implementing a sound insurance program. Your report agrees with this conclusion in several key areas. We believe that current management priorities will resolve the problems discussed in your report in an orderly manner. The Department is therefore convinced that we are achieving our objective of gaining broad acceptance by farmers as a well-managed insurance program and the alternative for disaster assistance programs.

Again thank you for the opportunity to respond to your draft report.

Sincerely,

for

FRANK W. NAYLOR, JR.
Under Secretary for Small Community
and Rural Development

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